THE BUILDER

A RECORD OF ARCHITECTURE AND CONSTRUCTION.

VOL. CXIII.—No. 3889. AUGUST 17, 1917.

TRADITION IN ART.

SOME interesting addresses have been given at the Summer Meetings which have been held at the Hampstead Garden Suburb, and among the best were those on the value of "Tradition in Art." The papers of Mr. Clausen, Mr. Voysey and Mr. Halsey Ricardo were all of them characteristic of the speakers and contained much suggestion for thought. Mr. Clausen believes that modern art should be representative of modern life, and that its inspiration should be drawn from actualities and not based on imitation. We should learn from Japanese art without becoming imitators of its conventions; our work should represent the emotions raised by the life round us and the circumstances of that life. This is sound as far as it goes, but it has to be remembered that there is infinite variety in the temperament of mankind, and that to many history and tradition may be more real than the facts of the life which surrounds them. It would be truer to say that the artist should try to express that from which he derives most pleasure and interest. The greatest picture Sir John Millais ever painted was probably "Isabella and the Pot of Basil," though the incident depicted belonged to the world of legend. The art which we do not want to have, and the literature the world can do without, are those in which a conscious effort has been made to depict or describe, because they are considered important, things which do not appeal to the artist's individuality. The work which can be called inspired is that which a man is driven to do not because it is of value to the world, but because it obsesses and controls him, and when a painter so controlled has a mastery of technique we get a great work. A great danger to the cause of art is that after the war the conviction that its incidents ought to be memorialised will lead artists from more congenial subjects, with the result that we shall have a plethora of mediocre and insincere work which will commemorate the bankruptcy of art rather than great events in the world's history; and for this reason we think the suggestion which has been made by Mr. Pittendrigh Macgillivray in a letter to *The Times*, that the erection of memorials should be postponed for ten years, is a sound one, though there is little chance of its being followed. Mr. Voysey always expresses himself well, but in his love for sincerity becomes intolerant of what we feel was an expression of sincerity in the past and may be an expression of sincerity in the present. He deplores the money that has been wasted in carving egg and tongue enrichments and the "millions of pounds" of the ratepayers' money thrown away on rustication, which "diminishes the strength of a wall and affords lodgment for dirt." Our comment would be that if an architect uses rustication because he thinks it appeals to the public, or because he thinks it is the vogue, without caring for it, he uses it wrongly; but if he uses it to give an emphasis to a building because he feels emphasis is needed, he is justified in his action, unless economy is a paramount consideration.

The value of tradition in art seems to us to be overwhelming and indisputable, while the desire to express individuality and personal character in art is quite a modern feature and is very largely based on a wrong conception of the relative importance of any one man and that of the successive efforts of his fellows working through generations, and attaining to knowledge and skill which is beyond the reach of any individual. We cannot, even if we try to do so, eliminate the effect of tradition, but we can produce burlesques in all forms of art by trying to shut our eyes to what it has to teach us. The great works of the past were not creations so much as the work of men who, for the most part, were carefully following a lead and only departing from it when confronted with difficulties which tradition could not solve. They were not, like the Athenians, always seeking for something new, and for that reason and because their work was not damned by the modern craze for self-assertion it is restful, pleasing and convincing. If modern art is to suffer shipwreck (and this may be), it will be because in its arrogance it has assumed that it can cover a field which never belonged to it in the past and which it cannot adequately fill in the present. We have to remember that literature and the publication of newspapers have profoundly affected the values of commemorative and symbolical art. If the great events of the present war were never commemorated by monuments, there would yet remain some thousands of books on every phase of the war, while we have in the files of newspapers a minute and full account of all that has taken place, which has also its pictorial representation in hundreds of thousands of photographs and cinema films which will be available for the instruction of the generations which are to come. We do not mean that these should take the place of monuments or that they are an alternative or substitute, but the fact that we have means of expression which were not available to our forefathers must have a distinct effect on the scope of our activities. In the same way the invention of printing doubtless militated against the employment of symbolical and religious sculpture in our churches, while the decay of feudalism in favour of a more democratic system affected the relative importance and use of heraldry in art. That which was an essential feature of education in the Middle Ages has largely become a matter of antiquarian interest and must remain so, much as we may regret it.

Facts such as these should teach us that there is little fear of our becoming slaves to tradition, for changing conditions are obliterating traditions which have become obsolete so fast that we cannot, if we would, be entirely governed by tradition. But wherever the same conditions obtain we throw away a most valued guide if we try to avoid its teaching, and, in addition, run great risks of producing worthless work. It is acknowledged that the greater proportion of our work was that of master craftsmen until the beginning of the nineteenth century, and yet we find it possessing merit often in a high degree. Would it have done so if those who produced it had gone out of their way to think out problems in design afresh? The answer must be negative whether we consider the work of the thirteenth century or the fanlights over a series of late Georgian doorways; and the eternal truth remains that what one man can add to the sum of beauty is very little, and will come in spite of himself, rather than from intensive thinking. A mass of wholly mistaken assertions have been made about the meaning of art by writers who can give no chapter and verse for their conclusions, but who spin phrases which hypnotise readers only to mislead them. Mr. Halsey Ricardo, in a short address, proved how invaluable tradition has been in the development of constructional science, which without it would never have reached its present development or have secured its historic triumphs. We sometimes feel that we should like to see all theoretical books on design burnt and all discussion of the meaning of art suppressed, as we are sure that they are utterly misleading to many and tempt them away from a study of the truth revealed in the works of architecture and other forms of art, and it is knowledge and not ingenious theory that is most wanted. Geoffry Scott's "Architecture of Humanism" would convince most readers of the futility of ingenious theorising without a basis of adequate knowledge, and shows how every position of the theorists can be turned by a man having an adequate knowledge of his subject, and skill in analytical reasoning. We must not be satisfied with the definition of architecture as "frozen music" or "the expression of emotion in the life which surrounds us," for it is neither, but rather the outcome of traditions slowly altering and adapting themselves insensibly to new needs and requirements; and our work will tend to be worthy of our times in proportion to our skill in meeting these needs, and our ability to avail ourselves of the knowledge and experience of those who have preceded us.

NOTES.

War Monuments.

WE have alluded to a very able letter in *The Times*, by Mr. Pittendrigh Macgillivray, in which he takes exception to opinions expressed by Sir George Frampton, as to the danger we run of allowing ourselves to be exploited by aliens when the time for the erection of war memorials comes. The writer is entirely justified in urging that the erection of war memorials should not be hurried, and is surely more than justified in minimising the "alien danger." Whatever measures it may be necessary and advisable to take for the protection and encouragement of our commerce, we should be sorry to see a similar national measure taken for the protection and encouragement of our art. If Mr. Brangwyn or Mr. Sargent can give us a greater or better war memorial than a British subject we should like to see them employed, because we feel that it would encourage our national art to have the best monuments possible, and not the best monuments which could be produced by British artists. It is quite possible that the result would be in either case the same, but the outcome would be more satisfactory to our national pride if it were arrived at on the broader and not the narrower basis. As Mr. Macgillivray points out, the foreigner will in any case be under a psychic disability, and if he can surmount this will prove himself the better man. The essential point is that if we want great sculpture it may be wise and necessary to wait for a great sculptor, for we can wait for our memorials though our soldiers cannot wait for munitions of war. Also it by no means follows that the greatest and best memorials of the war should take the form of sculpture, when there are many much needed schemes in most of our towns which might reasonably be carried out as memorials, as well as hundreds of smaller ones which might take another form. For reasons which we have elsewhere stated, we believe that the conditions of modern life have materially affected our outlook with regard to these and other questions, and the changes which have taken place render it more and not less reasonable to go slowly when the conclusion of the war brings these questions into the sphere of practical politics.

The Output of Labour.

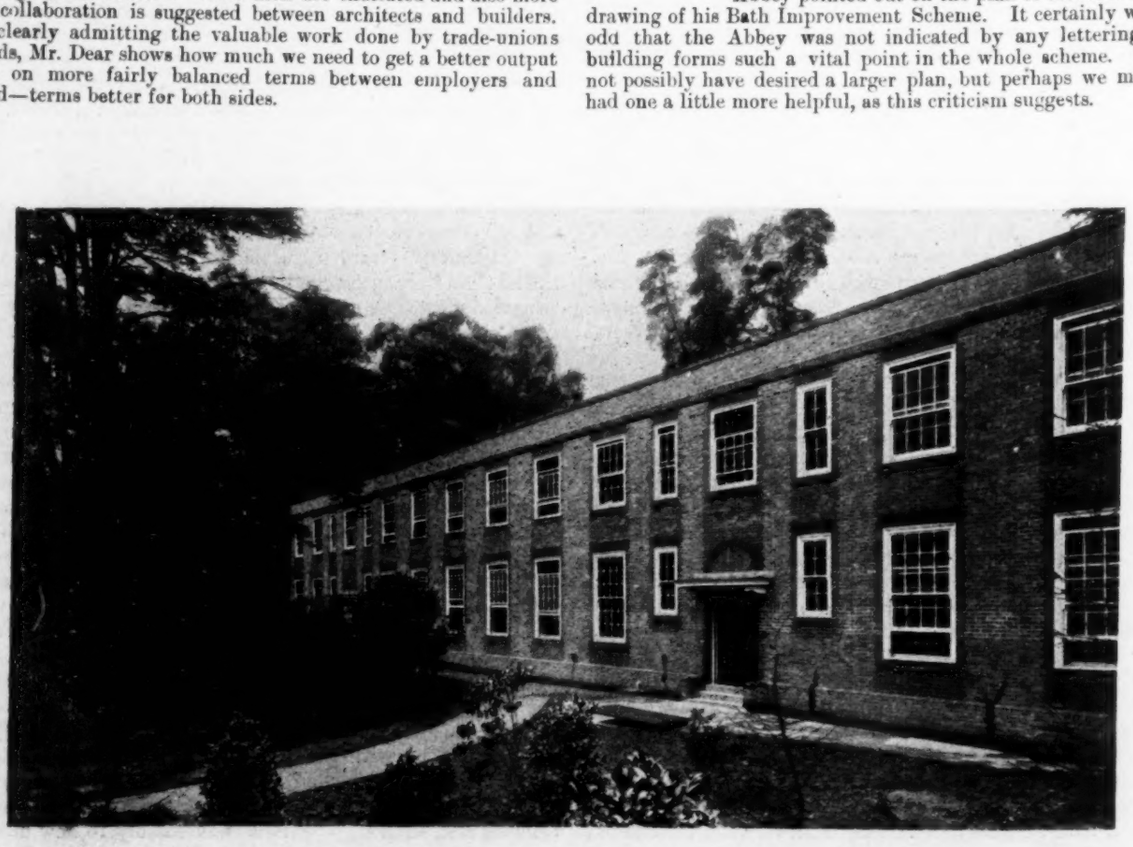
SOME very pertinent remarks by Mr. Philip Dear, M.A., on the output of workmen appears in the August issue of the *British Architect*. The influence and consequences of the guilds in the Middle Ages and modern trade-unions, and the difficulties of building employers in meeting the demands of their men are indicated and also more definite collaboration is suggested between architects and builders. Whilst clearly admitting the valuable work done by trade-unions and guilds, Mr. Dear shows how much we need to get a better output of work on more fairly balanced terms between employers and employed—terms better for both sides.

Sackville Street, Dublin

THE Committee which has been dealing with the question of the rebuilding of the destroyed area in Sackville Street has recommended that 50 guineas should be paid to Messrs. G. L. O'Connor, W. Kaye Parry, and R. Caulfield Orpen for the trouble they have taken in drawing up recommendations which the Committee have adopted in part. They are in favour of the widening of North Earl Street, which will cost £33,150, and as they failed to come to an agreement with some of the owners they propose to exercise compulsory powers. The Committee do not agree with the recommendations of the Expert Committee concerning the widening of Henry Street, though they recommend certain improvements; they are also unable to accept the proposals for widening Cole's-lane in their entirety, nor can they recommend the proposals made in connection with the frontage line of Eden Quay, but they accept the professional recommendations with regard to the small area destroyed at the lower end of Lower Bridge-street, and for the splaying of the corners of the sites at the intersection of Sackville and Abbey Streets. It seems probable that the Committee's enthusiasm for the capital does not impel them to take very wide views as to its architectural development, but it is at least satisfactory that they should have obtained expert opinion, and are even willing to pay a hundred and fifty guineas for it! Without the assistance of plans it is impossible to criticise the relative merits of the original proposals and those approved; but we should be surprised to find that the "full bill" was an extravagant one, and it is probable that the alternative recommendations are as carefully sparing as the scale of provisions for a beleaguered city! It is a pity that the careful and conservative instinct of compromise shown should not extend to the field of political life, in the treatment of which no such moderation is exhibited. The further recommendations of the Committee deal with the difficult questions of the supply of steel and wood required for purposes of building. The Committee have applied to the Local Government Board for sanction to borrow £76,020 under the provisions of the Dublin Reconstruction (Emergency Provisions) Act, 1916.

Plan Definition.

WHILST taking a final survey of the architectural exhibits at the Royal Academy, an architect who was with us insisted on having the exact position of the Abbey pointed out on the plan of Mr. Atkinson's fine drawing of his Bath Improvement Scheme. It certainly was a little odd that the Abbey was not indicated by any lettering, as that building forms such a vital point in the whole scheme. We could not possibly have desired a larger plan, but perhaps we might have had one a little more helpful, as this criticism suggests.



National Physical Laboratory: New Gauge-testing Laboratory. (*See p.* 96.)

AFTER-THE-WAR PROBLEMS OF RECONSTRUCTION:

ART SCHOOLS AND CRAFT WORKSHOPS.

On Friday, August 10, a conference on "Art Schools and Craft Workshops" was held in connection with a summer meeting at the Institute, Central Square, Hampstead Garden Suburb, N.W., when Professor Selwyn Image, M.A., and Mr. Thomas Okey, were the principal speakers.

Mrs. Barnett, President of the Institute, occupied the chair.

Professor Selwyn Image dealt solely with the subject of "Art Schools," and in the course of his remarks, said art schools exist for two purposes, purposes closely akin yet in many ways entirely separable. They exist, first, for the training of professional artists and craftsmen. They exist, secondly, for the training of artistic appreciation in the community at large. The Professor said that for our schools of art, as they actually exist to-day, he had a high regard. He had seen a great deal of excellent work produced by them. He didn't think that most people appreciated them as they ought to do, or made anything like the use of them they might make. "It is," he said, "the fashion in some rather prominent quarters to decry them, to pick holes in them, to fix upon their shortcomings, which are many, and ignore their excellences which assuredly are also many." At the same time he did not for a moment pretend that there was not room for much practical improvement in them; and he thought that such practical improvement need not be so very difficult a business—need not be at all a dream and mere counsel of perfection.

The Professor emphasised the importance he attached to the personality of the master, and to the freedom he should enjoy in exercising it. "In art," he said, "individuality is more than half the battle; and a successful master must not only possess individuality, but he must be in a secure position to let it have free play. If he is hampered by centralisation, by officialdom, by meddling committees of well-meaning, enthusiastic, but, so far as art goes, imperfectly equipped persons; if more than half his time is occupied with preparing meticulous returns and statistics, and with coaching his students up for competitions and external examinations; and if his position virtually depends on his forcing them through these with brilliant results; well, he may have the genius of a born artist and the capacity of a born teacher, but you will never get out of him his best, nor will his school, for all the prizes it may secure, ever render the community its true service." He said, "Sweep away, as far as may be, your supervision and interference; choose your man with infinite care; and then, again as far as may be, leave him to himself. Let him be to the pupils entrusted to him as the old masters were to their apprentices, very largely *in loco parentis*. Do not force him to conform to certain hard-and-fast universal regulations and bring himself into exact line with pre-arranged standards. For, indeed, it is by local variety of method and of work that our schools should be distinguished; not by being each, competitively, a reproduction of some single type, however admirable a type. When that is the spirit which prevails in our establishment, our conduct, and our generous support of the schools, then, but not till then, our national artistic education will have entered on a career of vital development."

Mr. Thomas Okey, who spoke on the subject of "Craft Workshops," said the problem was as to how they could be so organized as to turn their future workers into handicraftsmen. Could the class system effect what they desired? Was it a satisfactory substitute for the old apprenticeship system, and if not, could they find a substitute? It might be said the old apprenticeship system was gone for ever, and perhaps it had. They could not afford in these strenuous times to devote five or six years of a boy's life to learning a trade. They must find a substitute, and he believed that in some degree they could do so in their craft schools. They had got to realise, he said, that the arts and crafts movement was not a substitute for crochet work; if the problem was to be solved in a satisfactory manner it must be approached in a big way. They must be prepared to spend money on such a purpose; as much in a year for reconstruction as they were now spending in a week for destruction.

A brief discussion followed, in which Mr. Conrad Dressler, Mr. Dudley Heath and Mr. Harrison Townsend took part.

The Garden Suburb Future.

"Hampstead Garden Suburb: its Past and Plans," was the title of the address given by Lord Lytton at the meeting. The plans for the future, he said, included the foundation of a great pioneer school in the suburb. The present Minister for Education was looking out for a site for a pioneer school, where experiments in education could be carried out. The Institute School offered an extraordinary opportunity for putting experiments in education to the test among children drawn from all classes.

WAR MEMORIALS FOR NEXT OF KIN.

The Government are offering prizes, amounting in all to not less than £500 (in proportions to be subsequently decided), for a limited number of the most successful models for a small memorial plaque in bronze, to be given to the next-of-kin of those members of His Majesty's naval and military forces who have fallen in the war. The plaque must have an area of as near as possible 18 square inches. It may be a circle of 4¼ inches in diameter, or a square of 4½ inches, or a rectangle of 5 inches by 3 3-5 inches, and it is to be produced by casting from a model, which should be finished with precision. All designs submitted must be actual models in relief in wax or plaster of the size indicated. No models on a larger scale will be considered, and no competitor may submit more than two models. The design should comprehend a subject and a brief inscription. It is suggested that some symbolical figure subject should be chosen, but the following inscription has been decided upon:

"HE DIED FOR FREEDOM AND HONOUR,"

and this must form part of the design. Since the surname of the person commemorated and the initials of his Christian names are to be engraved on the plaque, the design should be arranged so as to leave space for the name. In the case of a rectangular design, this space should be left at the base; if the design is circular, a margin surrounding, or partially surrounding, it should be left free. Competitors are reminded that the design should be essentially simple and easily intelligible. All the competitors must be British-born subjects. Each model should be packed in a small box and delivered to the Director, National Gallery, Trafalgar-square, W.C. 2, not later than November 1st. The model must not be signed, but should be marked on the back with a motto or pseudonym, which should also be written on a sealed envelope containing the competitor's name and address. No other communication should be attached. Models to which prizes are awarded shall be the sole property of the Government, who will arrange for the appearance of the artist's signature or initials on the finished plaque. Copies of the instructions may be obtained on application in writing to the Secretary, War Office; or to the Secretary, Admiralty.

National Physical Laboratory: New Gauge Testing Laboratory. (See page 96).

CORRESPONDENCE.

The Housing Problem.

SIR,—On the ground of taking a constant and intelligent interest in the *Builder*, may I be allowed to contribute some thoughts upon a very pressing matter, namely, the housing problem, which bristles with difficulties and will, *post bellum*, be very acute indeed. For the purposes of this letter, by the housing problem is meant the housing of the working classes at rentals up to, say, 14s. per week. The housing of the well-to-do works out its own salvation by reason of the compatibleness of money and education (or education and money) directly controlled.

The matter under review is not an *ex parte* one, as some anti-landowners would urge us to believe. I have had some few years' experience in estate management and surveys for dilapidations, and must say that it is like "casting pearls before swine" to expend money on improvements and repairs in a good many cases. There is a class of weekly tenant that finds delight in committing wanton damage and allowing voluntary waste, both of which constitute a very serious menace to a generous and dutiful landlord. Some social reformers have suggested that it is a matter of "clean hearts" rather than "clean houses"—the former insuring the latter. *Per contra*, there are some landlords that "milk" their properties to a point highly dangerous to themselves, their tenants and their successors. Very difficult indeed is the case of the man (in large industrial centres especially) who, whether rightly or wrongly, fortunately or unfortunately, persists in having a family of, say, six children on a wage hopelessly inadequate for the task. Often such a man has great difficulty in securing a house, but he and his family have to be housed somewhere.

The increased cost of building material and labour will not be conducive to the builder or estate owner launching out and building houses when peace is declared. Financial aid by the Government will be desirable and helpful, but State control will result in "muddle." But why not inaugurate a scheme to aid the working classes in acquiring the houses in which they live? It is safe to assume that an ordinary six-roomed house, in the London suburbs for example, cannot be built for less than £300 (not speculative building), and cannot, therefore, be let at a rental less than, say, 12s. per week. Such a rent to a man earning £2 or £3 per week is a burden. If he has a family of children, six rooms are the absolute minimum which is essential to decent bringing up. Sub-letting, lodgers, &c., do not contribute to idealistic living, and the sanctity of home life is destroyed. Hence we see there are difficulties on both sides of the question. Some will be overcome by natural selection, some by prudence and hard work, others the law must lick into shape.

With regard to the future planning and equipment of the houses which will be built following the declaration of peace, we do not want to bring into being any more long, monotonous rows of bay-window terrace houses with the proverbial parlour and grained and varnished double-hung sashes. They are an abomination, and, at times, do not aid a man to love his next-door neighbour.

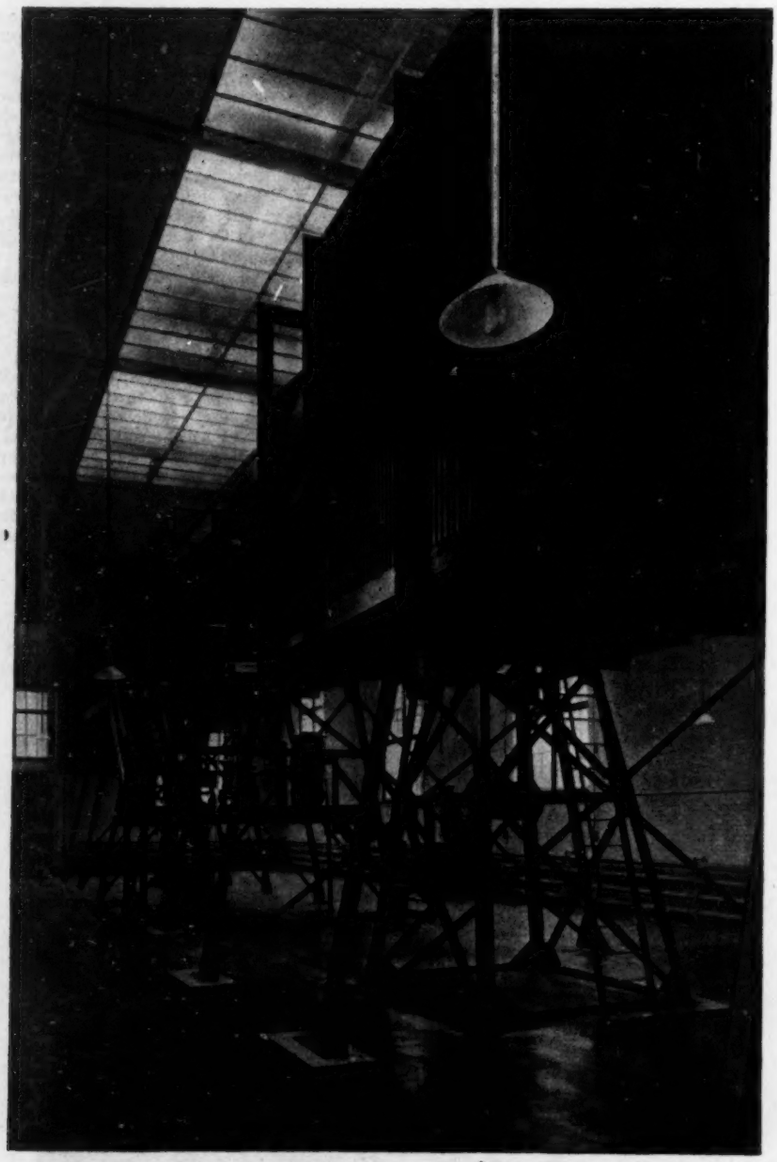
There are (*inter alia*) four items which should be enforceable under all by-laws. They are as follows:—

1. Bath room (h. and c.), not a portable one in scullery.
2. Casement sash windows hung at sides.
3. Side entrance (or other in addition to main entrance), for ingress and egress of dustman, coalman, &c.
4. Pantry, with window opening to external air.

With town planning schemes vigorously and earnestly pushed ahead, and private enterprise (which is a jewel and the salt of world progress) once again at work, we may look forward to the springing up of more "stately homes of England." Then, with John Addington Symonds, the historian, we may say:—

> These things shall be! A loftier race
> Than e'er the world hath known shall rise,
> With flame of freedom in their souls
> And light of knowledge in their eyes."

C. J. SAWARD.



National Physical Laboratory.
New Aeronautics Buildings: The Air Channel. (*See p.* 96.)

ART IN CHURCHES.

At the concluding sitting on Saturday last of the Conference of Modern Churchmen, organised at Cambridge by the Churchmen's Union, Professor Percy Gardner delivered an address on "Christian Modernism and Art." He said the question whether Modernist views of religion involved a particular attitude towards art should be considered. He dealt with only one kind of art—the plastic and graphic, which, he said, probably had its origin in magic. Opposed to it were mysticism and Puritanism. Early Christianity set out with a prejudice against art as naturally pagan, and many Christian schools had regarded it as idolatrous or worldly. Mysticism led to symbolic art, which was indifferent to beauty. How far, he asked, could painting be Christianised? Landscape painting was essentially religious, but not always Christian. Wordsworth, however, looked on landscape in a Christian way. Landscape painting had been transformed by science, and historical painting by the critical study of history. Modernists would welcome the progress produced in painting by science and historical study. They also appreciated Greek sweetness and light, which was parallel to a high morality. Modern schools of realism, by the rejection of beauty, became foul and degraded. Referring to the use of painting and sculpture in churches, Professor Gardner said they might either have stained-glass windows or fresco paintings on the walls. He thought the latter had many advantages over the former when there were good wall spaces. In either way it was possible to give series of representations from the whole history of Christianity, and so teach people Church history, regarding which they were usually very ignorant.—*Times.*

Workmen's Compensation.

In the House of Commons on Monday, Mr. Brace moved the second reading of the Workmen's Compensation (War Addition) Bill. He said it proposed to give a 25 per cent. increase of compensation to all totally incapacitated cases of injury in all industries, which was made imperative by the rise in the cost of living. The Bill was read a second time.

GENERAL NEWS.

Professional Announcement.

Mr. Sydney Tatchell has changed his address to No. 25, Queen Anne's-gate, S.W. 1. His telephone number is unaltered, viz., Victoria 531.

A.A. Members Serving with the Forces.

The total of members of the Architectural Association serving with the forces is 558.

Second-Lieut. Norman Fellowes Prynne.

We regret to hear that Second-Lieut. Norman Fellowes Prynne, Devon Regiment, fifth and youngest son of Mr. G. W. Fellowes Prynne, is reported missing and believed killed in action, as from April 24th last.

Lieutenant G. B. Burton.

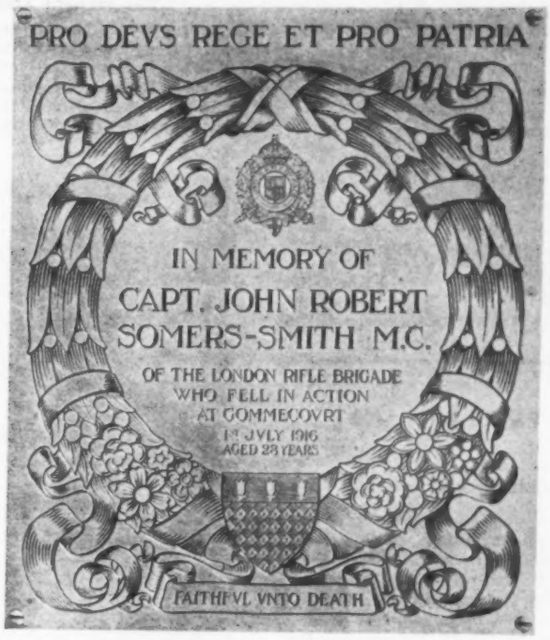
Lieutenant Geoffrey Burnell Burton, Liverpool Regiment, who died of wounds received in action on August 3, aged twenty-one, was the son of Mr. and Mrs. G. L. Burton, of Blundellsands, Liverpool. He was educated at Greenbank, Liverpool, and Sedbergh. On leaving school he studied for a year at the Liverpool School of Architecture, and on the outbreak of war joined the Liverpool Regiment.

Homes for the Disabled.

Mr. Hayes Fisher, M.P., President of the Local Government Board, on August 9 laid the corner stone of the first block of buildings in course of erection at Fulham for homes of men disabled in the war, provided by the War Seal Foundation Fund. The architects of the buildings are Messrs. C. S. & E. M. Joseph. Mr. Hayes Fisher expressed a hope that the building would provide healthy homes for the brave men who had suffered for the country and civilisation. The scheme of these buildings offered an example for imitation.

The Architectural Association.

The Architectural Association, which is the recognised educational body for the architectural profession, and which enjoys the patronage of His Majesty the King, has acquired the leases of two houses in Bedford-square, where its educational work will in future be carried on. Since its formation in 1847 the Association's educational activities have grown continuously and its School of Architecture has become world famous and attracts students from all countries, particularly in the British Empire. It is now opening its schools to women students, as there will probably be many who, under present-day conditions, will desire to adopt architecture as a profession.



This brass was designed recently by Mr. L. Stanley Crosbie, F.R.I.B.A., and Messrs. Hart, Son, Peard & Co., of Oxford Street, made it.

Trade between the United Kingdom and Canada.

The Imperial Trade Correspondent at Winnipeg (Mr. W. J. Healy) reports, under date June 30, that at a recent meeting of the Winnipeg Board of Trade (i.e., Chamber of Commerce) a new standing committee was appointed with the object of promoting trade between the United Kingdom and Canada. This Committee, which is to be known as the Imperial Trade Committee of the Winnipeg Board of Trade, is prepared not only to answer all questions by British manufacturers bearing on the trade within the Empire, but to receive, and have properly displayed, samples from any British manufacturer. By this means, it is thought importers in Western Canada will have an opportunity of handling British-made goods which are suitable for that territory. Samples submitted can usually be sold, and the proceeds, less a small commission to cover incidental expenses, remitted to the exporter. The Committee will also endeavour to establish connections between the importer and manufacturer, or the importer and agent. Communications from the British firms should be addressed to the Secretary, Imperial Trade Committee of the Winnipeg Board of Trade, Winnipeg.

National Physical Laboratory: Administrative Block. Mr. W. D. CARÖE, Architect. (See page 96.)

Leading Contents.

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ILLUSTRATIONS.

A Marine View.

THE beautiful drawing of shipping by Jan Van der Welde which we publish to-day was, we believe, executed about the middle of the seventeenth century. There were three brothers Van der Welde, and Jan produced some fine etchings, as noted in Mr. Salaman's Handbook on Prints (published by Messrs. George Bell & Sons). The spirited bidding for this fine picture at Willis's rooms on July 12 was an indication of its value, and it closed somewhat abruptly at 185 guineas, which we imagine must be very considerably below its value. We are indebted to the courtesy of Messrs. Robinson & Fisher for the opportunity to reproduce what our readers will at once recognise as a fine seventeenth century illustration of decorative art. It appears to be drawn on a painted ground, and the atmospheric value of the original is quite remarkable.

National Physical Laboratory.

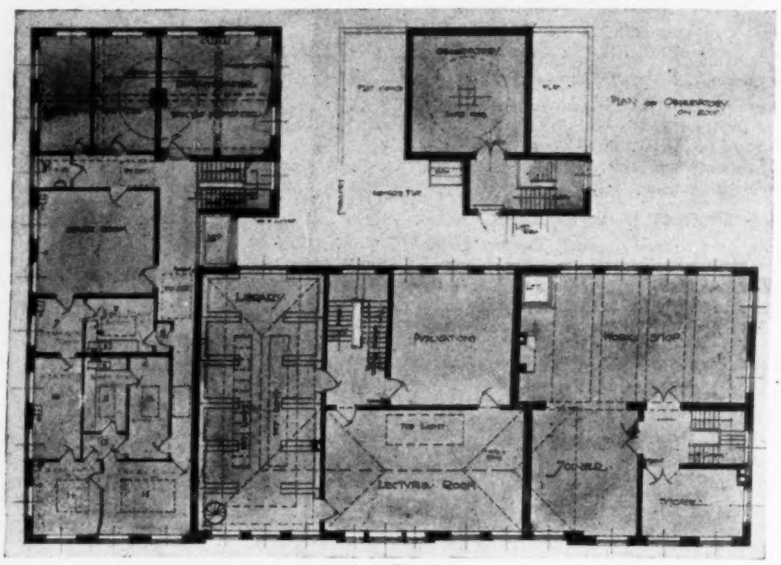
THE Administrative Building which was opened by Mr. Balfour in 1913 provides accommodation for the Metallurgy and Optical Departments and for administrative purposes. The total cost of the buildings has exceeded £35,000, of which £15,000 was provided by the Treasury and the remainder from private sources. The architect was Mr. W. D. Caröe, to whom the authorities expressed themselves as much indebted for the success of the results achieved, and the contractors were Messrs. John Dorey & Sons.

The other two buildings of which we give illustrations and plans were carried out by H.M. Office of Works, and are devoted to gauge testing and aeronautical work, departments in which work of the first importance in connection with the present war has been carried out. In the aeronautic building an unusual feature is the great wind channels which have been constructed, in which a uniform current of air is blown past models at a known rate. The model itself is held in on the arm of a specially constructed type of balance by means of which both horizontal and vertical forces of currents acting upon it can be accurately measured. The principal difficulty in connection with this type of installation is that of rendering the current of air passing through the channel sufficiently steady and uniform, since there is a very great tendency for air-currents to form eddies, whose action on the model would impair the value of the results, and, indeed, might make it impossible to obtain results at all. In the air-channels at the Laboratory this is accomplished by the use of special grids and also by a suitable proportioning of the channel itself to the room or building in which it is placed, since the latter acts as the return which completes the circuit of the moving air.

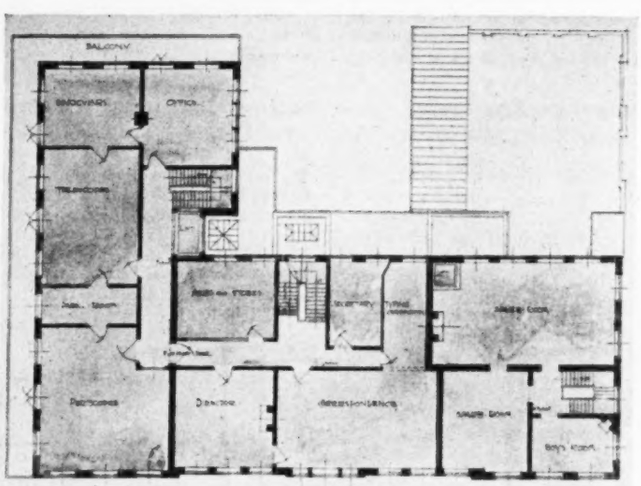
It is a pity that the authorities should not have settled on a general lay-out of a collection of most interesting buildings serving important purposes and connected with Bushey House. It is another case of the neglect of the architect to the loss of the community.

"The Western Front."

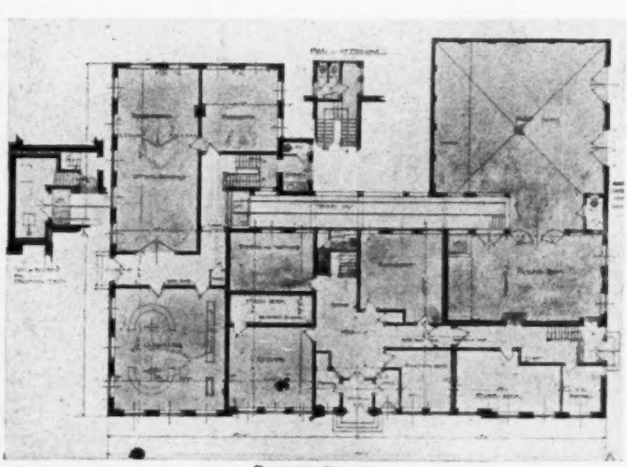
We have received the eighth part of "The Western Front," consisting of drawings by Mr. Muirhead Bone, the letterpress being written at British headquarters. Among the topical illustrations is Plate XLI, "Panorama from the Scherpenberg." The hill of Kemmel is shown and the Messines-Wytschaete Ridge. Plate XLIII is Mr. Bone's impression of the Vimy Ridge, the scene of the battle on April 9; while two views of Ypres form Plate LI. "The Western Front" is published for the Government from the offices of *Country Life*, Ltd.



SECOND FLOOR.



FIRST FLOOR.

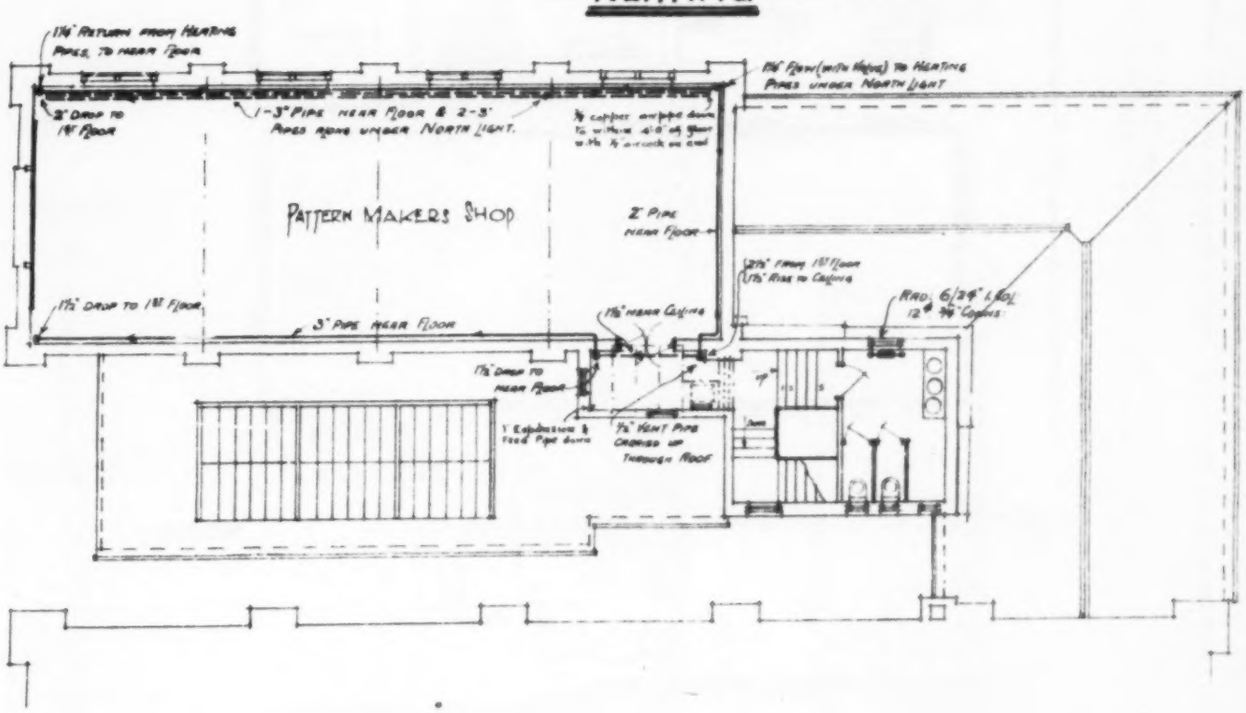


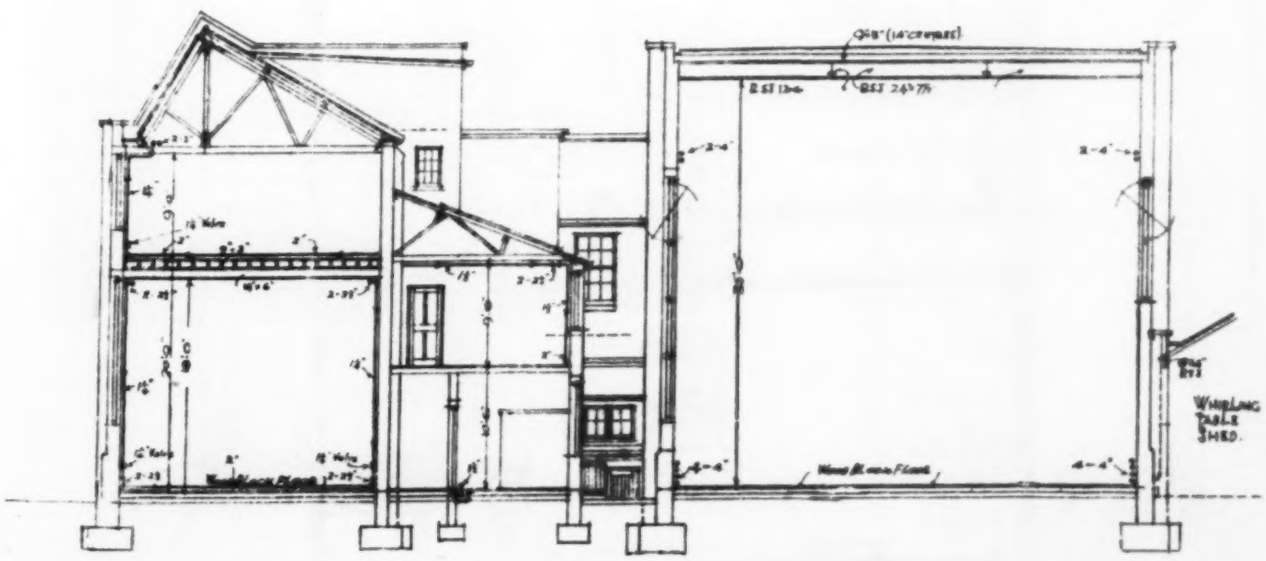
GROUND FLOOR.

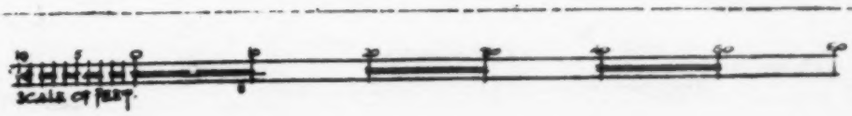
National Physical Laboratory, Central Offices.
Mr. W. D. CARÖE, Architect.

AERONAUTICAL BUILDINGS
TEDDINGTON

— HEATING —


1¼" RETURN FROM HEATING PIPES TO NEAR FLOOR
1¼" FLOW (WITH VALVE) TO HEATING PIPES UNDER NORTH LIGHT
2" DROP TO 1ST FLOOR
1-3" PIPE NEAR FLOOR & 2-3" PIPES RUN UNDER NORTH LIGHT.
PATTERN MAKERS SHOP
2" PIPE NEAR FLOOR
1¼" DROP TO 1ST FLOOR
3" PIPE NEAR FLOOR
1¼" NEAR CEILING
1¼" DROP TO NEAR FLOOR
1" EXPANSION & FEED PIPE DOWN
¾" VENT PIPE CARRIED UP THROUGH ROOF
RAD. 6/29" L.BOL 12 @ 9/9" CENTRES

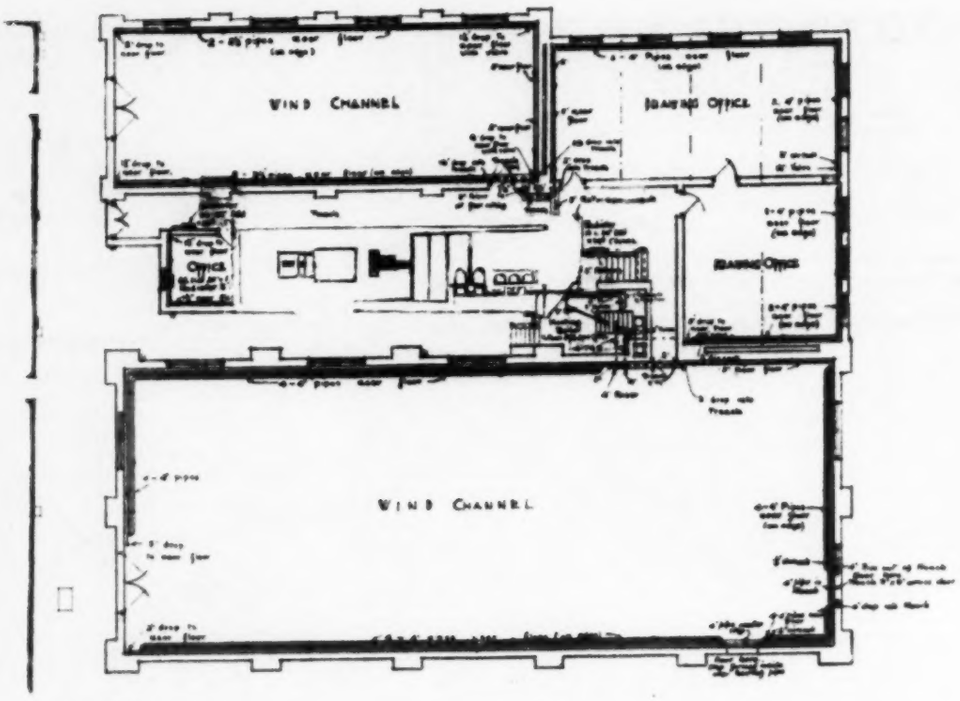




NATIONAL PHYSICAL LABORATORY: AERONAUTICS BUILDINGS.—CARRIED OUT BY H.M. OFFICE OF WORKS.

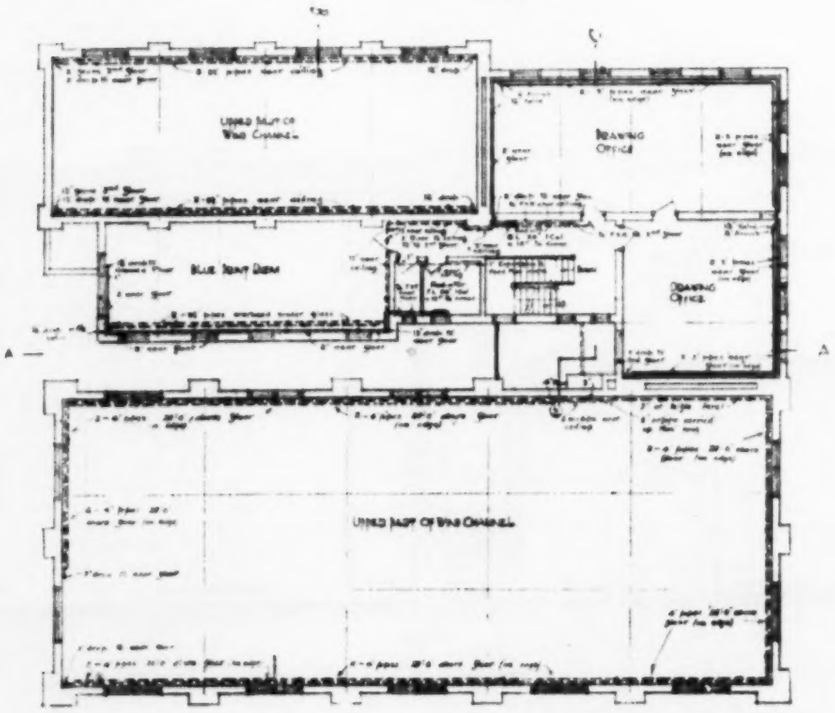
ÆRONAUTICS BUILDINGS TEDDINGTON

— HEATING. —



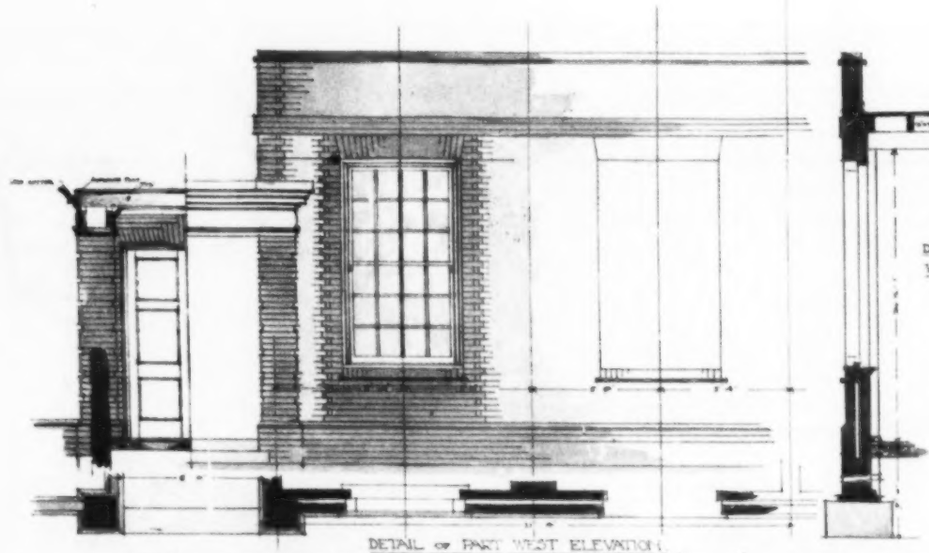
GROUND PLAN.

— HEATING. —

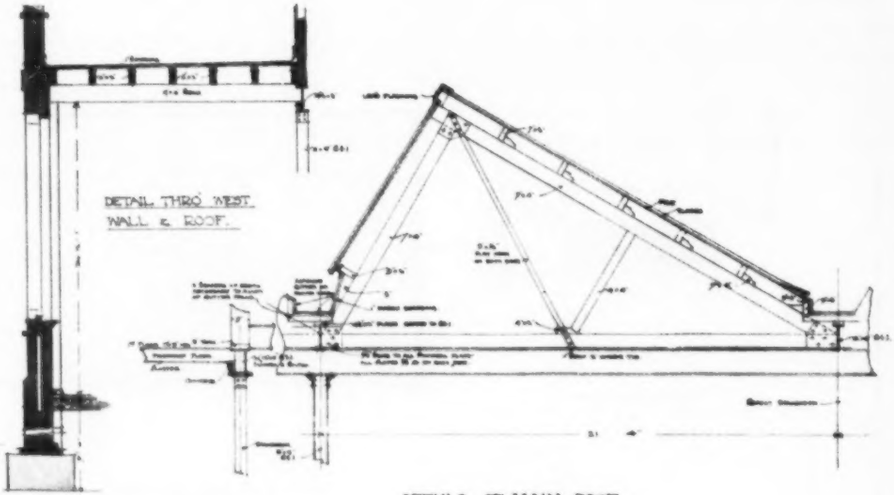


FIRST FLOOR PLAN

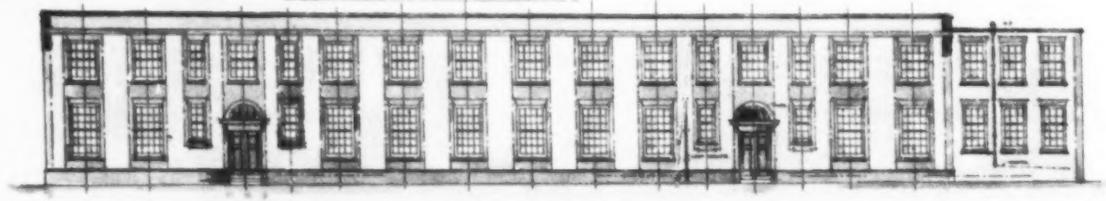
NATIONAL PHYSICAL LABORATORY: AERONAUTICS BUILDINGS.—CARRIED OUT BY H.M. OFFICE OF WORKS.



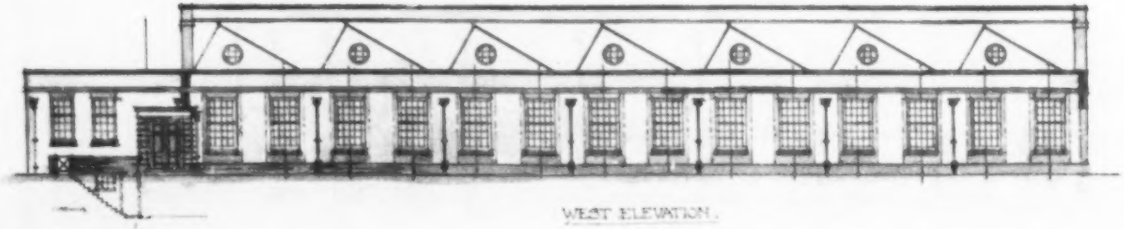
DETAIL OF PART WEST ELEVATION.



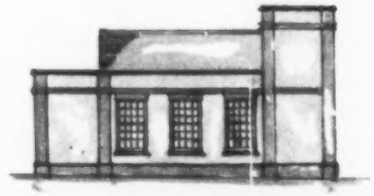
DETAILS OF MAIN ROOF.



EAST ELEVATION.



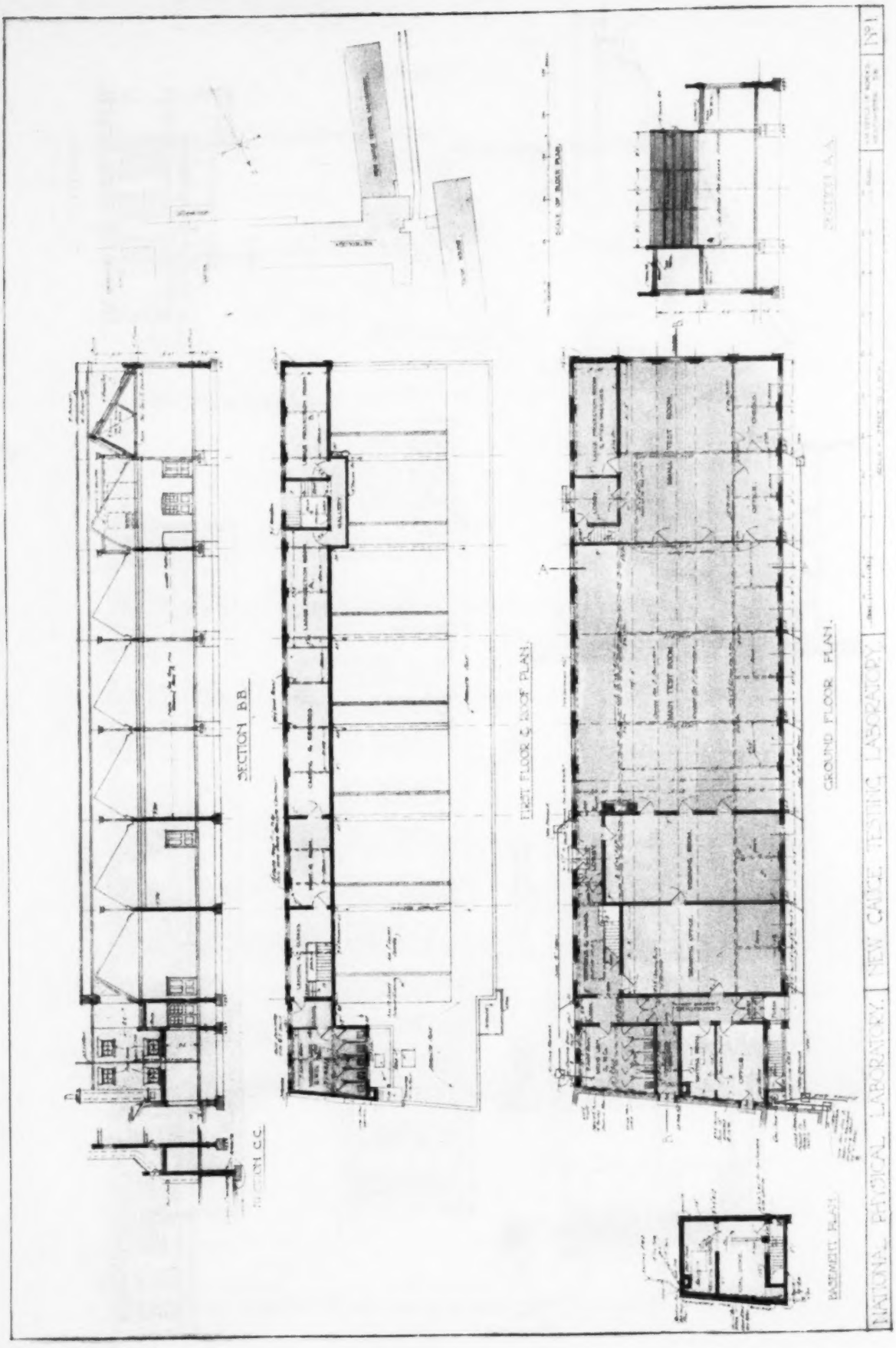
WEST ELEVATION.



SOUTH ELEVATION.

NATIONAL PHYSICAL LABORATORY. | NEW GAUGE TESTING LABORATORY. | H.M. OFFICE OF WORKS WESTMINSTER. SW | No 2

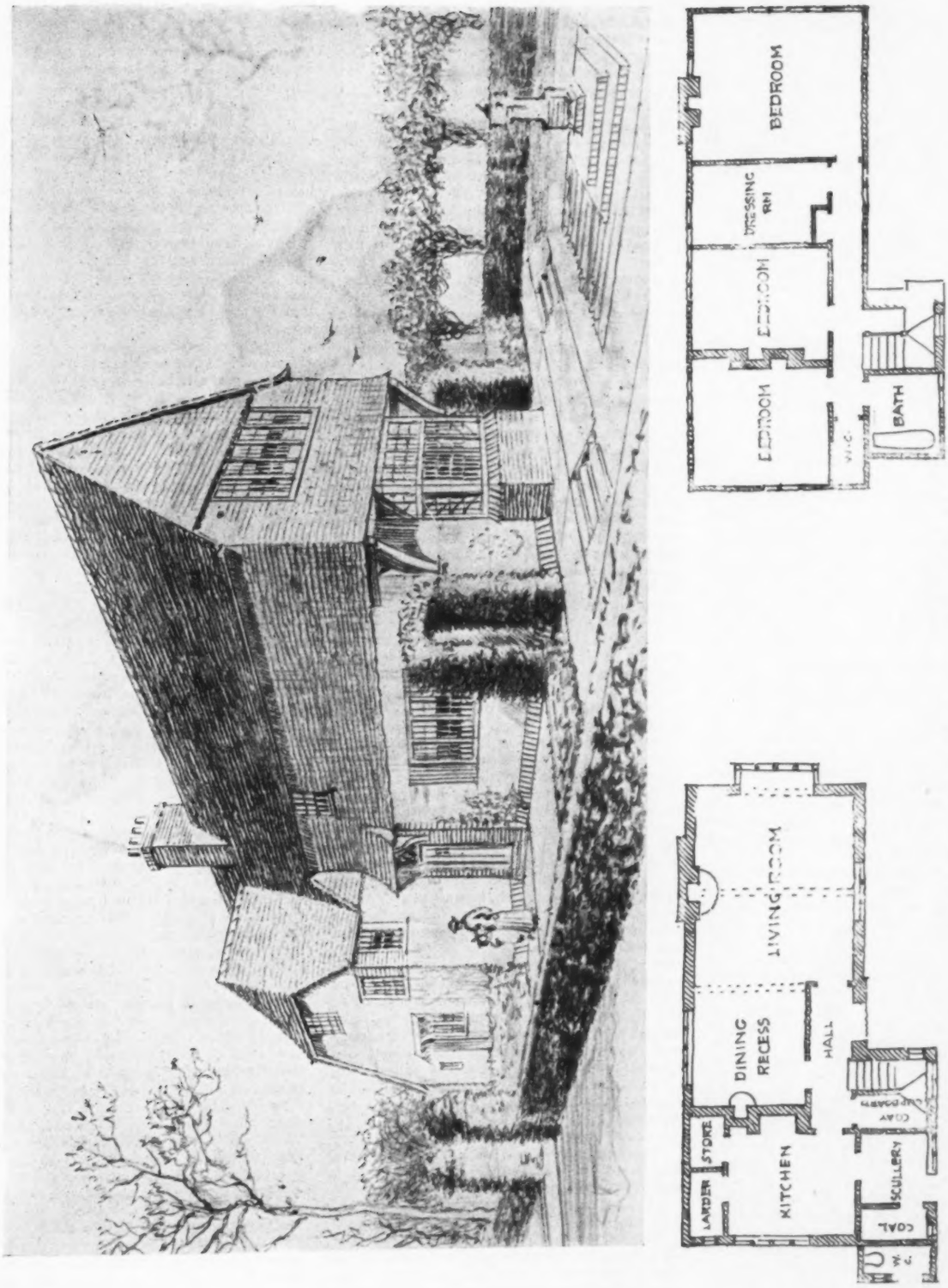
NATIONAL PHYSICAL LABORATORY: NEW GUAGE TESTING LABORATORY.—CARRIED OUT BY H.M. OFFICE OF WORKS.



NATIONAL PHYSICAL LABORATORY: NEW GUAGE TESTING LABORATORY.—CARRIED OUT BY H.M. OFFICE OF WORKS.

A MARINE VIEW.—B

—By Van der Welde.



Cottage, Ryde's Hill, Surrey. Mr. T. G. ANGELL, Architect.

[This is a pleasing example of quiet and simple design. We also give, on page 103, the design for a bungalow cottage from the Report of the Board of Agriculture and Fisheries.]

BRITISH ARCHÆOLOGICAL ASSOCIATION.

Congress at Brighton.

MANY learned societies during war-time have abandoned their annual gatherings and accustomed activities, but this venerable Association, which was founded in 1843 and has held its Congress every year since that remote date, was unwilling to break the continuity, and determined to hold a brief and informal gathering this year at Brighton. At first it was proposed to visit Winchester, but the city and the hotels were so monopolised by the military that that scheme had to be abandoned. Brighton, however, was able to welcome the Association. A reception committee, composed of the Mayors of the three towns, Brighton, Lewes and Chichester, and the principal residents, under the chairmanship of the Mayor of "London-by-the-Sea," was formed, and a cordial welcome was given to the members. The President is Mr. Charles Edward Keyser, M.A., F.S.A., D.L.; Mr. Oke, F.S.A., was appointed secretary and the director was Mr. P. M. Johnston, F.S.A., F.R.I.B.A., who knows Sussex architecture very thoroughly, and proved himself to be an admirable cicerone. The headquarters of the Association during the Congress were fixed at the Royal York Hotel.

The proceedings commenced after luncheon on Thursday, July 19th, with a visit to

The Church of St. Nicholas.

Mr. Johnston stated that its ancient history was a little clouded in uncertainty. The existence of a church in Brighton was recorded in the Domesday Survey, and it is a little doubtful whether this present one was that church so mentioned. It is possible that the oldest church in Brighton stood at the foot of the hill, and not on the present site. But there are certain tangible relics which seem to show that an early Norman church stood here. The first of them is the ancient Norman font, which is very remarkable. It has often been described. It is cylindrical in shape and bears some curious sculptures. The eastward compartment depicts the Last Supper, showing our Lord crowned with a nimbus, and raising the right hand in the attitude of blessing. The sculptor could only find room for six of the Apostles, three of whom appear on either side of Christ. Each of the six has one hand uplifted, and the table bears the usual array of loaves and vessels. It is not very common to find this subject depicted on fonts. The other larger scene on the west represents two stages in a part of the St. Nicholas of Myra legend, to whom the church is dedicated. This saint was the patron of sailors, and along the coast of Sussex there are several churches dedicated to him. The story told by this sculpture is as follows: St. Nicholas having checked the worship of Diana and cut down her sacred tree, Satan, in revenge, prepared an oil that would burn on water, and destroy even stone walls with fire. Assuming the garb of a religious woman he offers a flask of this oil to some sailors who were voyaging to Myra, with a request that as a mark of respect to the bishop they would anoint the walls of his church with the oil. This scene is represented on the right of the vessel: a female handing the vase of oil over the stern to the sailor who is holding the rudder. At the prow of the vessel we see St. Nicholas, with mitre and pastoral staff. He is apparently questioning the sailor on the gift he has received. We must suppose him to be unfolding the machinations of "the evil and foul Diana" and bidding them cast the fatal present into the sea. This command was at once obeyed, and contrary to nature the oil blazed on the surface of the water. It is a curious subject realistically treated.*

The compartment on the south side of the font depicts the Baptism of our Lord, showing three figures standing under three arches. The central figure is that of Christ standing upon a conventional mound of water. The figure on the left is John the Baptist, holding in his left hand a gourd or shell, and across his left arm hangs a napkin. The winged figure is an angel who is holding the baptismal apparel. The fourth compartment contains two figures, and its subject is obscure. It has been suggested that it represents the ordinance of marriage. There is a string of ornamentation above and below the sculptures, the latter representing conventional foliage.

Another relic of the Norman church is the presence of Caen stones built up in the tower, which were tinged with pink, showing that it had at some time been exposed to fire. Many of them were Norman stones, having been carved with zigzag ornament and showing axe-tooling. There were also thirteenth century stones worked up in the tower, which was erected in 1340-50, containing Norman and Early English materials taken from the older church. A remarkable feature of the church is the admirable rood-screen, which is very similar to those in East Anglia. It belongs to the fifteenth century, and was erected about 1430 or 1440. It is the only one of its kind in Sussex. It has double tracery like those in Norfolk, and must have been the gift of an Eastern county's man, or presented by some one who admired the East Anglian screen and had it fashioned in Norfolk.

Before the restoration of 1853 the church must have presented a curious appearance, which is shown by some old prints. Owing to the growth of the population, the church was blocked up with wooden structures of all shapes and sizes, great square pews, galleries tier upon tier, one being thrown across the chancel and another containing the organ at the tower end. The fishermen sat in a gallery over the rood-screen. The restoration was accomplished as a memorial to the Duke of Wellington, who is said to have worshipped in the vicarage-pew during his boyhood. A memorial to Dr. Johnson was erected in 1909; he used to sit in the Thrales' pew, in the north gallery.

The Lady Chapel on the south of the chancel is of the Late Perpendicular period; the windows and door have been renewed. The registers date back to 1554, and for some unaccountable reason have been transferred to the modern church of St. Peter, now the parish church of the town. They should certainly be restored to their own church. The early book should be carefully rebound, as it is in a very dilapidated condition.

In the churchyard there is the stump of a churchyard cross, which is unique in Sussex. Crosses are for some reason very uncommon in the county. Only the Calvary and the base-block remain; but the vicar of St. Nicholas', the Rev. H. M. Hordern, who takes a keen interest in the fabric of his church, intends to restore the cross, and would be grateful for suggestions with regard to the design. There are some interesting tombs in the churchyard, including that of Captain Tattersall, who commanded the vessel that conveyed Charles II to France after his remarkable flight from Worcester to the Sussex coast; of Phœbe Hessell, who served as a soldier at the battle of Fontenoy and in several other campaigns without disclosing her sex, and lived to the age of 108; of Mrs. Crouch, the actress; and of Martha Gunn, the bathing-woman in the time of George, Prince of Wales, afterwards King George IV, who made Brighton so notorious.

The antiquaries then walked to the station and took the train to Hassocks, whence a delightful field path conducted them to

Clayton Church.

Viewing the church from the exterior, Mr. Johnston pointed out its unmistakable Saxon character. It was an undoubtedly Saxon church that was transformed in the thirteenth century. The lower stones of the west wall showed "long and short" work. Entering the building through the timber and plaster porch, ecclesiologists could not fail to detect its Saxon characteristics. These were evident from an inspection of the chancel arch. It has bold, half-round mouldings; the abacus is massive and chamfered. On each side of the arch is a semi-circular headed recess. The reasons for the loftiness of Saxon churches were attributed by Mr. Johnston to the fear of Danish invasions. The Danes loved to destroy all ecclesiastical buildings, and the easiest way was to set a torch to the eaves, especially when the roofs were thatched. Hence he thought the Saxons made their churches lofty so that it was more difficult for their foes to set fire to them. Another reason was their megalomania. Saxon art always inclined to bigness. They chose the biggest stones, big capitals, big churches. The walls of Clayton church are less than the standard size in thickness, only measuring 2 ft. 6 ins.

The chancel is thirteenth century work with triple lancets at the east-end and a round window over them. There is a blocked-up arch in the north and south walls of the nave, showing that formerly there were transeptal chapels which have disappeared. The windows of the chancel are lancets with the heads of a king and queen on the hood moulding. In the nave Decorated windows have been inserted. One bell is of pre-Reformation date. On the south wall of the chancel is the brass of a priest holding chalice and wafer with an inscription of the date 1523, and another brass is on the floor at the west-end.

The most interesting feature of the church is the remarkable series of mural paintings which Mr. Johnston attributed to pre-Conquest times. The foundation of the work was doubtless laid in the ninth or tenth century, according to Mr. Westlake, and in Norman times they were partly repainted and touched up. The paintings have become somewhat faint, but Mr. Johnston had made out the general scheme, which is a very large one representing "The Doom," and extends over the whole of the wall above the chancel arch, and along the north and south walls. In the centre is a figure of our Lord in glory, seated on a throne and within a pleated oval. His right arm is raised in benediction, and His left hand holds a book. On His left are those who are judged to be unworthy to enter the celestial mansions, and on His right the souls of the saved. The figures present a fairly complete study of early ecclesiastical vestments. The artist must have been an early reformer somewhat socialistically inclined, as he placed on the left hand, among the rejected, kings and bishops who are debarred from entering heaven. There is a large representation of a cross which two angels are holding up. Three ecclesiastics are trying to reach the cross, but one of the angels is repelling them by his arm, and somewhat distorting his figure in so doing. The bishops are clad in long chasubles. One wears a pallium, or woollen scarf, and is therefore an archbishop. The end of the chasuble is fringed and splayed. They have also albs. The second bishop has a red chasuble and the third a yellow one. There are or were somewhat similar paintings in the Sussex churches of Hardham, Plumpton and Westmeston, all belonging to Lewes Priory, which imported foreign artists from Cluny. The Lewes Priory was the originator of this style of art in this country. Some authorities have been deceived by the rows of apparently trefoil arches which appear in these paintings at Clayton. They are really horse-shoe arches. The classical borders are interesting, and appear at the summit of the paintings under the beam. There are faint remains of the Greek fret or key pattern in perspective, as in the Saxon painting at Whitley, Surrey.

There we see an angel with long wings presenting figures to our Lord. He is giving the keys to St. Peter and the sword to St. Paul. On the north wall is an hexagonal tower, possibly a baptistry with figures seated inside and outside. This may signify the "heavenly mansions," or Paradise. An ecclesiastic appears with a pastoral staff, vestments similar to those on the south wall and long red shoes. He is followed by another ecclesiastic, and between them are figures of angels with wings, one turned up, the other turned down. On the south wall are six heads of kings with primitive crowns. It is difficult to see or interpret much of the painting, which is one of the most impor-

* The story is told in the "Legenda Aurea" of Jacobus de Voragine, published at Nuremberg in 1481, and in the English of Wynkyn de Worde.

tant of the remaining mural decorative schemes in England.

Passing from the church the members, under the direction of Mr. J. E. Couchman, F.S.A., followed the London and Brighton road for a few hundred yards before taking a path on the west of the high road leading towards the Hassocks Sand Pits; on the top of the ridge they met the Roman road leading from the mouth of the Adur to Bromley. At this spot, from the farm known as the Cold Harbour Farm, the road has a width of twenty-seven feet with a camber of eighteen inches. The metal here is only about five inches thick and of land flints, but in the lower-lying parts of the road, perhaps a quarter of a mile further north, the foundations were of large blocks of chalk and an upper surface of firm gravel and stones. By the side of this road, for a mile or two, runs another road almost parallel, which forms the parish boundary, and is probably a British road of much earlier date. At the side of the British road lie the "bear stakes," where, in later days, the unedifying spectacle of bear baiting took place.

At the Sand Pits, from which some five to ten tons of clean red sand are extracted daily for building purposes, is situated the Roman burial ground. From this field of urns, some hundreds of cinerary urns have been taken, together with the votive cups which usually accompany them, some few coins and much broken domestic pottery. Two wells were discovered—one belonging to the first century, lined with clay 18 inches thick to within 14 feet of the bottom, then with wide and thick pieces of oak, much of which was sound, black and very hard; and a vase (Roman Belgic), was found near the bottom, belonging to the first century.

The second well was later, lined the whole distance with very large flints. This was cleared to a depth of about 50 feet without reaching the bottom, and further work had to be abandoned owing to the sides showing danger; this was probably dug in the early part of the second century.

Near this spot were found two neolithic clay spoons, the only others known at present being in Italy and France; they are supposed to be funeral furniture.

Four urns of Bronze Age type have been found in the Sand Pits. Two, large with wide top bands on conical bases; one small cup of the same type; and one urn of the Maidstone type, resembling a Stilton cheese, and containing bones.

The Roman pottery consists of Red Gallican ware, called Samian, from Narbonne, Leroux, and some German factories—many fragments having the potter's stamp. Belgic or Upchurch ware, thin with fine black lacquer; local, of coarse earth—the usual style for cinerary urns—or of hard grey material of the Farnham character; and small cups from Castor, with hunting scenes (barbotine), New Forest and some others are represented in fragments.

On leaving the Pit, the old Saxon Moot Hill was pointed out from which the Hundred takes its name; and where for centuries the law was administered under the light of heaven. The Ham or Heim of the priest and law-man still exists in the name of "Ham Farm"; and a little to the east is the field of the Hundred settles, where those attending the Moot rested for their three days' summons.

After tea at Hassocks, the return journey was made to Brighton; and in the evening the Association adjourned to the Fine Art Gallery of the town, where

A Reception by the Mayor of Brighton

was held, to which he had invited many of the principal residents and the local members of the Sussex Archæological Society and the Brighton and Hove Archæological Club. The Mayor gave a cordial welcome to the Association, alluding to the fact that thirty-two years ago, in 1885, it had held a similar gathering, under the presidency of the Duke of Norfolk. He mentioned that a few years ago the Town Council took steps to purchase Hollingbury Camp, and that, through the good offices of Alderman Griffith, they were able to purchase the whole of that Camp which had now been secured to them for all time. He had often wondered why some part of Brighton had not been named after the old town of Brighthelmstone, and he would suggest that it should be revived in some place, such as the old portion of the town near the market. Probably the members of the Association would be able to offer them some advice on that matter. He expressed the opinion that town councils should have the power to preserve old buildings and to restrict or prohibit the erection of modern buildings in the vicinity which were not in keeping with the character of the buildings already in existence.

The Presidential address was delivered by Mr. Keyser, who thanked the Mayor for his kindly welcome to the Association and agreed with him that it was not advisable in war-time to abandon intellectual studies and pleasures. The address contained allusions to the principal objects of antiquarian interest in the neighbourhood, and dealt mainly with the development of Gothic architecture in this country with special allusion to Sussex examples.

On Friday, July 21st, a long day was spent at

Lewes,

which town possesses many objects of antiquarian interest. The Mayor of Lewes, Alderman Rugg, received the visitors at the Town Hall, which is a modern building, but it contains a remarkable carved Renaissance staircase which came from Slaugham Place, one of the most magnificent mansions in Sussex in Jacobean times. This was set up in the "Star Inn," that occupied the site of the Town Hall, and which witnessed the burning of the 16 Lewes Martyrs in 1556–7. When the inn was pulled down the staircase was set up in the Town Hall.

The Mayor made a gracious speech in welcoming the Association and was thanked by the President. The famous Blunt Jacobean Cup was exhibited, and some special constables' staves, and pictures of the Corporation were examined. The visitors then proceeded to

Lewes Castle,

the headquarters of the Sussex Archæological Society. Mr. Johnston first described the Barbican, which was erected about 1340, with its machicolations, corbelled angle-turrets, crosscrow oylets and portcullised gateways. This was erected by the last of the de Warennes, Earl John, in advance of the Early Norman gate-tower of the first Earl William, which projected inwards from the curtain wall as at Arundel Castle. The curtain, surrounded by a dry moat, continues with a wide sweep, embracing the great court of the castle, and was about 240 yards long. On the right stood Brack Mount, probably the site of William de Warenne's Keep, and on the left the later Norman shell keep on a steep mound, partly artificial. This is in the form of an irregular oval on plan, about 80 ft. in diameter and 20 ft. high, with a wall 10 ft. thick in which is a large fireplace. Two of the four towers projecting from the keep, of the thirteenth century, are nearly perfect. There are no remains of the hall, chapel or lodgings. In the keep are arranged some of the stone, metal and other objects belonging to the Sussex Archæological Society, including the British dug-out canoe, with the anchor of yew, found in a mud bank of the Arum, near Burpham. In the

Barbican House

are stored a large library and museum of objects found on the site of Lewes Priory and from other parts of the county, including the excavations at Tortington Priory, made in 1909, and the Alfriston Anglo-Saxon cemetery (conducted in 1913), tapestries, tiles, glass, early drawings and prints, and a large collection of Sussex ironwork. The churches of the town were visited, including that of St. John-sub-Castro, entirely rebuilt in 1839, a terrible example of the architecture of that debased period. It has been described as a mixture between a castle and a barn, which is a libel on both. There are, however, some objects of interest remaining from the old church, the record of the immuring of a Danish anchorite, a Saxon doorway, and two thirteenth century stone sepulchral slabs. In the High-street there is a remarkable old house with overhanging story and part of an arcade of three traceried panels of about the date 1320. The ruins of the

Priory of St. Pancras, Lewes,

were examined under Mr. Johnston's direction, who faithfully recorded its foundation by William Earl of Warenne and Gundrada his wife in 1078 and its destruction by Henry VIII and Thomas Cromwell, whose infamous agent was an Italian named Portinari. It was the first Cluniac foundation in this country. Special attention was paid to the Infirmary, which probably resembled the *Domus Dei* on St. Mary's Hospital at Chichester. Mr. Johnston had not much faith in the legends of underground passages in connection with monasteries, and thought that they were usually drains for carrying off surface water.

At St. John's Church, Southover, the company inspected with much interest the lead coffins containing the bones of the founders of the Priory, and the very fine coffin slab of the Countess Gundrada, discovered when the railway was made in 1845. The latter is of black marble richly carved. The "house of Anne of Cleves" was inspected, which tradition has long assigned to the divorced Queen of Henry VIII. The little window near the door is pointed out as the place where she looked for the coming of her royal husband. But he had given her Southover House and other larger and more convenient residences, and it is not likely that she would ever select this enlarged cottage or farmhouse for her seat. It was probably occupied by her agent. Southover Grange or House is a delightful building erected almost entirely with Caen stone and other materials taken from the Priory. In the beautiful garden Mrs. Stewart Jones hospitably entertained the company to tea. Here are some finely wrought capitals from the Priory and a "Woe Water," the Winterbourne, which is dry in summer but often overflows its banks at other seasons of the year.

At St. Anne's Church, of almost entirely Transition Norman date, the visitors noted the fine Norman font of basket-pattern, and the peculiar capitals of the south arcade which are of a local type, having drops or pendants of foliage at the angles. Similar pendants can be seen at Telscomb, Rodwell and Beddington.

In the evening the company assembled again in the Art Gallery to hear a lecture by the Rev. P. H. Ditchfield, M.A., F.S.A., editor of the *Journal* of this Association, on

Old Brighton.

The lecturer told of the prehistoric remains that had been found in the town and district, the camps and earthworks, the Roman relics, and recounted how the Saxon chief Brighthelm united the two hamlets, Islingworth and Atlingworth, forming his ton or town of Brighthelmstone, or Brighton. He alluded to some early charters, the inroads of the sea, the attacks of the French, and gave a description of the town as it was in the days of the Prince Regent and his curious entourage, amusing his hearers by quoting both the extravagant eulogies and the biting satires on the Pavilion, varying from a "magnificent palace worthy of a sovereign and capable of sustaining the splendours of a Court," to "a serio-comic Chinese pumpkin."

On the last day of the Congress visits were paid to the churches of Old and New Shoreham. Swinburne wrote of the latter as "the hoary grey church whose story silence utters and age makes great." These wondrous buildings are too well known to require a lengthy description, and want of space prevents a full record of Mr. Johnston's admirable architectural record of their beauties. The Congress concluded with a visit to Chichester Cathedral, where several portions of the noble edifice were inspected which are not usually seen by the public.

The members will retain many pleasant recollections of the Brighton Congress and of the kindness and hospitality they received.

P. H. DITCHFIELD.

THE BUILDING TRADE.

THE COURTS (EMERGENCY POWERS) ACT, 1917.—II.

In a former article* we referred to those provisions of the Courts (Emergency Powers) Act, 1917 which relate to contracts for construction of any building or work, but there are other provisions in the Act which are of importance. The sections we considered were sections 1 and 3, but section 2 relates to contracts of tenancy, and grants relief, on much the same principle as was applied to "other contracts," where by virtue of any enactment relating to the defence of the realm or any regulation made thereunder the obligations imposed by the contract of tenancy cannot be performed. The section is: "Where by virtue of any contract of tenancy any person is bound to do, or to abstain from doing, or is under any liability if he abstains from doing, or does, any act or thing, and by virtue of any enactment relating to the defence of the realm or any regulation made thereunder the doing of such act or thing is wholly or partially restricted or ordered, he shall not during the continuance of the contract or on or after the termination thereof be liable to any mandatory order or any injunction or interdict in respect of such act or thing, or be liable to pay any sum of money or incur any forfeiture or other penalty in respect of the failure to do or the doing of such act or thing, if and in so far as the failure to do or the doing of such act or thing is attributable to compliance with such restriction or order."

The section goes on to provide that if the restriction is removed during the currency of the contract the obligation shall be fulfilled as soon as may be after the restriction is removed, but that if the restriction is not removed until after the termination of the contract the damages payable are to be a sum not exceeding the expenditure which would have been entailed by the fulfilment of the obligation.

Although the section is curiously worded its meaning is plain, and although proceedings are not by the section prohibited, if an action to enforce the terms of the lease were brought the section would afford a defence, on the person sued proving that the act or breach of covenant complained of was attributable to the order or restriction. It will also be observed that the subsection prevents any real damages being claimed.

Section 4 of the Act requires more consideration. This section provides that "Subsection 2 of section 1 of the Increase of Rent and Mortgage Interest (War Restrictions) Act, 1915, shall not apply to a lease of a dwelling-house for a term of 21 years or upwards" and repeals section 2 of the Courts (Emergency Powers) Act, 1916.

Subsection 2 of section 1 of the Increase of Rent, &c., Act, 1915, provides that a fine, premium or other like sum shall not be required in consideration of the grant, renewal or continuance of a tenancy of any dwelling-house to which the Act applies, and by section 2 subsection 2 the Act applies to "a house or a part of a house let as a separate dwelling-house where such letting does not include any land other than the site of the dwelling-house and a garden or other premises within the curtilage of the dwelling-house, and where either the annual amount of the standard rent or the rateable value of the house or part of the house does not exceed" (*a*) thirty-five pounds in the metropolitan police district including the City of London, (*b*) thirty pounds in Scotland, and (*c*) twenty-six pounds elsewhere. We explained the provisions of section 2 of the Courts Emergency Powers No. 2 Act, 1916, in our issue for August 25, 1916.

The above amendment of the Increase of Rent, &c., Act has made section 2 of the Act of 1916 no longer necessary, as it gave powers to a county court to grant leases for a term of twenty-one years and upwards if it was satisfied that the terms of the new lease were on the whole not less favourable to the tenant.

It will be seen that the present Act removes leases of twenty-one years and upwards from the operation of the Increase of Rent, &c., Act altogether.

Section 5 of the Courts (Emergency Powers) Act, 1917, is important. In our issue for March 9, 1917, we drew attention to the decision of the Court of Appeal in the case Sharp Brothers and Knight *v.* Chant reversing the decision of a Divisional Court which will be found commented upon in our issue of December 15, in the Legal Section. In that case the rent of a house within the Increase of Rent, &c., Act had been raised after the commencement of the war but before the Act came into operation. The tenant had continued to pay the increased rent some weeks after the Act had come into force, but subsequently deducted the extra rent so paid from his next payment of rent, and the landlord sued him for the amount thus deducted. The Court of Appeal held that the tenant was not entitled to deduct the amounts so paid, as they were payments made in mistake of law, and there was nothing illegal in the original agreement as to increased rent at the time it was made.

In the case of rent and mortgage interest the increase under section 1 subsection 1 of the Increase of Rent, &c., Act is made irrecoverable by the landlord or the mortgagee, but it is only in the case of fines and premiums that the Act in section 1 subsection 2 enacts that they may be recovered from the landlord or be deducted from the rent.

Section 5 of the present Act seems directed to do away with the difficulty experienced in the above case, as it provides that where any sum has, whether before or after the passing of this Act, been paid on account of any rent or mortgage interest, which, by virtue of the Increase of Rent, &c., Act would have been irrecoverable by the landlord or mortgagee, the sum so paid shall at any time within six months after the date of payment, or in the case of a payment made before the passing of this Act within six months after the passing thereof, be recoverable from the landlord or mortgagee who received the payment, or his legal or personal representative, by the tenant or mortgagor, and may without prejudice to any other method of recovery be deducted from any rent or interest payable within such six months by the tenant or mortgagor to the landlord or mortgagee.

Subsection 2 of this section also contains provisions under which a tenant may require a landlord to delete from a rent book or similar document entries showing any sum rendered irrecoverable under the Increase of Rent, &c., Act, to be in arrear, and a refusal to comply with the request is made the subject of a penalty on summary conviction.

This whole section (5) is to be construed as one with the Increase of Rent, &c., Act.

By section 6 of the Courts (Emergency Powers) Act, 1917, it is provided that the provision contained in Section 1 (*a*) of the Courts (Emergency Powers) Act, 1914, which prohibits any person from proceeding to execution or enforcing any judgment or order without applying to the court for leave, shall not apply to any judgment or order for the recovery of any sum of money or costs given in any action of tort.

The only remaining section we need notice is section 7, which amends section 2 subsection 6 of the Increase of Rent, &c., Act. That subsection reads: "Where the standard rent payable in respect of any tenancy of a dwelling-house is less than two-thirds of the rateable value thereof, this Act shall not apply to that rent or tenancy nor to any mortgage by the landlord from whom the tenancy is held of his interest in the dwelling-house." By the amendment the word "standard" is omitted from the subsection, and at the end of the subsection these words are to be inserted: "And this Act shall apply in respect of such dwelling-house as if no such tenancy existed or had ever existed."

The effect of this amendment is very obscure, but we presume that it amounts to this: that where the rent is less than two-thirds of the rateable value the Act does not apply, but that directly the rent is raised above the standard rent then the Act will apply; but it is an extremely involved piece of legislation.

These amending Acts referring to numerous other Acts are always difficult to follow, but we may sum up the effect of the provisions of the Act referred to above as follows:—

(1) Relief to tenants who have been prevented from performing some term of the lease by reason of the effect of some provision relating to the defence of the realm (section 2).

(2) The amendment of section 1 subsection 2 of the Increase of Rent, &c., Act so that a fine or premium may be required on the grant, renewal or continuance of a tenancy where the lease is for 21 years or upwards (section 4).

(3) Enabling sums paid on account of rent or mortgage interest which are declared irrecoverable by the landlord or mortgagee under the Increase of Rent, &c., Act to be recovered by the tenant or mortgagor (section 5).

(4) Providing that the restrictions contained in section 2 subsection 6 of the Courts (Emergency Powers) Act, 1914, shall not apply to actions of tort (section 6).

(5) Amending section 2 subsection 6 of the Increase of Rent, &c., Act relating to leases at less than rack rent.

*August 3, p. 63.

PATENTS.

APPLICATIONS PUBLISHED.*

103,288.—Wyman Clark Parker: Tanks for rust proofing metals.

107,390.—Evan Owen Charles Howells: Slab buildings.

107,402.—Robert Young Ardagh: Manufacture of a new or improved fire-resisting composition.

107,413.—Frederick Ernest Osborne and G. W. Riley, Ltd.: Portable houses.

107,438.—Edwin George Totton: Frame or holder for holding and securing treads for stairs.

107,444.—Henry Rutherford: Manufacture of stays, joists and girders.

107,451.—Edwin Lovell: Portable tents.

107,461.—Wilfrid Hampson and Joseph Lawrence: Chimneys and chimney-pots.

107,479.—John Richards and Henry Bowen: Devices for securing sashes or casement windows in position when closed.

107,483.—Helen Rorke (legal representative of Edwin Rorke): Construction of road surfaces composed of mineral aggregates and bituminous binders.

107,526.—Cranes (Birmingham), Ltd., and William McBride: Cord holder or cleat.

107,549.—George Bangs McGrath: Method of making pavements or paving mixtures.

107,557.—Frederick John Tomalin.—Plastic composition for use in the manufacture of mouldings.

107,565.—Edward Wilkinson Ashby: Construction of hollow metal derricks.

107,571.—Neville Edward Brookes (Good Inventions Co.): Heating apparatus.

107,613.—Edmund Ward Pattison (Tadashi Moniwa): Cements.

107,623.—George Manchester Chandler: Boxes.

107,631.—Basil Mott: Underground tunnelling, boring and shaft-sinking, and apparatus therefor.

107,640.—Alfred Hutchinson Cowles: Treatment of silicates.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

INDUSTRIAL RECONSTRUCTION.

WE have received the following memorandum on industrial reconstruction from the Employers' Parliamentary Council:—The interim report on "Joint Standing Industrial Councils" presented to the Prime Minister by the Sub-Committee on "Relations between Employers and Employed" (Cd. 8606) contains recommendations of a varied and comprehensive character, which are now submitted to employers' associations and labour unions for their consideration. The first point that prominently presents itself in the report is the assumption, or implication, that the labour unions represent the whole of the workpeople of the country, which is not the case. It may be true that in certain industries the unions do, in a large measure, if not fully, represent the workpeople employed therein; but, taking the workpeople throughout the country, the overwhelming majority are not members of labour unions. Nationally speaking, therefore, the unions represent only the minority, and can speak and act only in the name of that section of labour that is organised.

The report does not make note of the privileged position of labour unions under the Trade Disputes Act. The Employers' Parliamentary Council submit that freedom and security for industry are impossible until all combinations of Capital and Labour are subjected to the ordinary law of the land, and conspiracies for "paralysing the country" by means of general strikes and lock-outs are rigorously suppressed. The repeal of the Trade Disputes Act must be regarded as a condition precedent to the establishment of that close co-operation between employers and employed which has now become more than ever vitally essential to industrial prosperity.

The report emphasises the need, in the interests of the community, of the relations between employers and employed being of such a character as will "offer to workpeople the means of attaining improved conditions of employment and a higher standard of comfort generally, and involve the enlistment of their active and continuous co-operation in the promotion of industry." To this end the Sub-Committee recommend "the establishment for each industry of an organisation, representative of employers and workpeople, to have as its object the regular consideration of matters affecting the progress and well-being of the trade from the point of view of those engaged in it, so far as this is consistent with the general interests of the community."

To provide means for carrying out this recommendation the Sub-Committee (paragraphs 7–14) submit proposals for "the formation of Joint Standing Industrial Councils in the several industries, where they do not already exist, composed of representatives of employers and employed"; and (paragraph 16) they give examples of the questions with which the Councils should deal.

In an appendix to the report the Sub-Committee seek to make clear certain points of their recommendations, viz.:—(1) as to the representative character of the organisations to be represented on the Industrial Councils; (2) as to those industries in which organisations of employers and workpeople exist in an imperfect form, or do not exist at all. In these connections, it may be doubted (*a*) whether any industry is completely and perfectly covered by organisations either of employers or employed; (*b*) whether it is possible or practicable to bring within the scheme those industries where no organisation exists, or where the organisation is imperfect. At present the Sub-Committee insist that "the Councils should be composed only of representatives of trade unions and employers' associations, and that new organisations should be admitted only with the approval of the particular side of the Council of which the organisation would form a part."

It will be observed that the Sub-Committee have been driven by the pertinent questions addressed to them by the Reconstruction Committee to admit certain fundamental and serious difficulties; and that when confronted by the questions: "Is it intended that decisions reached by the Councils shall be binding upon the bodies comprising them? If so, is such binding effect to be conditional upon the consent of each employers' association or trade union affected?" the Sub-Committee can only answer that agreements reached by the Councils will "carry with them the same obligation of observance as exists in the case of other agreements between employers' associations and trade unions." The significance of this will be appreciated by employers' associations which have had experience of the 'binding character" of such agreements as those referred to. It is idle to suggest that the agreements reached by the Industrial Councils could be of any real or lasting consequence, or be considered as possessing any proper guarantee that their terms would be enforced, unless they were of a legal character with provision for penalties recoverable out of funds reserved to meet liabilities involved. The Sub-Committee suggest that "it may be desirable at some later stage for the State to give the sanction of law to agreements made by the Councils, but the initiative in this direction should come from the Councils." It is certain that this aspect of the question will arise immediately the Councils, if established, set to work; and it can be settled only in the practical way mentioned above.

The Sub-Committee confess that the question of the restoration of trade union rules and customs suspended by the war is "one of the chief factors in the problem" presented by their report. They do not ignore "the lessons learnt during the war," but they insist that "the definite co-operation and acquiescence by both employers and employed must be a condition of any setting aside of these guarantees or undertakings; and that, if new arrangements are to be reached, in themselves more satisfactory to all parties but not in strict accordance with the guarantees, they must be the joint work of employer and employed." In answer to a question by the Reconstruction Committee, the Sub-Committee say:—

> It is clearly intended that all pledges relating to the restoration of trade union rules shall be redeemed without qualification unless the particular trade union concerned agrees to alteration; and it is not intended that the Council shall have power to decide such questions by a majority vote of the workmen's representatives from all the trade unions in the industry.

This leaves the whole matter open to discussion and arrangement. May it be assumed that "the lessons of the war" have convinced even the Labour Unionists responsible for the old and fatal policy that the rules and customs referred to can, in the very nature of things, never be restored? There are many indications that warrant this assumption; and, if it can be made a matter of mutual agreement between employers' associations and the labour unions, the outlook for British industry will be full of hope and promise. If not—well, the writing is on the wall, and there can be no mistaking its direful meaning.

Taking the Report under review as a whole the Employers' Parliamentary Council express their appreciation of the efforts made by the Sub-Committee to propound a solution of the problem by which the country will soon be faced. While many of the recommendations are, in the opinion of the Council, in themselves laudable and to some extent practicable—as a matter of fact, certain of the recommendations are already and have for long been in operation in several industries—others are of a nebulous character, suitable more for academic discussion than for practical experiment. The Report will, however, serve the useful purpose of presenting the problem of industrial reconstruction on definite lines; and in this respect, the recommendations of the Sub-Committee should be studied and digested by those concerned, with a view to a true and lasting solution being found.

Book Received.

THE TRADE OF TO-MORROW. By Ernest J. P. Benn. (Jarrolds Publishers (London), Ltd. 2s. 6d. net.)

PROBLEMS OF RECONSTRUCTION.

"Standards of Art and Standards of Trade."

AT a meeting held at the Institute, Central Square, Hampstead Garden Suburb, on Monday, August 13,

Mr. Frank Pick, in a paper on "Standards of Art and Standards of Trade," said there was one standard of art, its oneness with the life which it graces, and its capacity to form with that life a living whole. If art was to be a living thing it must fulfil three conditions. First, it must be the spontaneous self-expression of the people. Art could not be bought at a shop just like any other commodity. Its recognition and its value depended on more than the cash paid. They depended on what was brought to it by the buyer. All could not create as artists or craftsmen could, but all could create by keeping alive within themselves the spirit of artistry and craftsmanship, by filling the bare object of artist and craftsman brim-full of life. Secondly, art must be democratic. Art was not an affair of collectors and connoisseurs, of scholars and critics, but in an acceptable phrase was "of the people, and by the people, and for the people." Thirdly, and because it must be everywhere, art must be useful, or at any rate related to things of use. In regard to standards of trade, he said that trade was a narrow business and a branch of the wide affairs of industry. He would see to it that the workman was paid a living wage, which would give him a surplus over and above what he needed to live decently and provide for himself and his family. The workman, too, had a surplus which he could bring to his work—real workmanship. There was an addition which was not of quantity but of quality. Thus, if any man would make a yard of cloth, he might make just a yard of cloth; but if he would go further and take more pains he might make a thing of beauty for ever.

Dealing with the commercial spirit and modern unrest, Mr. Harold Speed put in a plea for the more intelligent use of machinery as a tool. The commercial man, he remarked, saw in machinery an opportunity of increasing and cheapening production and of organising distribution on a much larger scale, thus greatly extending the opportunities for making profits. That was the chief use to which machinery had been put. Formerly the commercial spirit had a doughty rival in the spirit of the craftsmen, a spirit concerned first with doing the best work and making the finest article that they were capable of conceiving. But now the worker was no longer an independent craftsman. He was chained to a machine only a small part of whose activity he was allowed to see, and he was denied any craftsman's pleasure in the work he was helping to create. To put it brutally, whereas the spirit that had dominated the owners of the tools had been to get as much work as cheaply produced as possible, the trade-unions had been concerned with doing as little work for as much money as could be wrung out of the employers. What good could come out of the antagonism of two such ideals? He was afraid that as long as that commercial spirit with its inhuman tendencies was the dominating influence on both sides, the problem of Capital and Labour would not be solved. Work under machine conditions had got to be made more interesting and more human, and the spirit of the craftsman, with its pride in the quality of the work done, must be somehow reintroduced. As for the employers who owned the machinery, they would have to enlarge their outlook and realise that the goods they made would go out into the world to influence the lives of their fellow men, and that nothing but the best that could be made with the means available was good enough.

The Curatorship of Sir John Soane's Museum.

Mr. Arthur T. Bolton, F.S.A., has been appointed Curator of Sir John Soane's Museum, Lincoln's Inn Fields, W.C. The appointment is made by the President of the Council of the R.A.

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the Building Trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Aberdare	11	11	11	11	11	10½	10	8	8	8
Accrington	11	10½	11	9½	9	10	9½	7	7	7
Altrincham	11	11	1/-	1/-	9	1/1	11½	9	9	9
Ashton-under-Lyne	1/-	1/1	1/0½	1/-	1/-	1/-	11	8	8	9
Barnsley	10½	11½	10½	10½	9	10½	9½	8½	8½	8½
Barrow-in-Furness	11½	11½	11½	11½	11½	11½	11	8	8½	8½
Barry	1/-	1/-	1/-	1/-	—	1/-	11	9	9	9
Bath	9	9	9	8½	8½	9	8	6½	6½	6½
Bedford	8	8	9	8½	8	9	6½	5½	5½	6
Birkenhead	1/-	1/-	1/1	1/1	1/-	1/-	11	9	9	9
Birmingham	1/0½§	1/0½§	1/0½§	1/0½§	1/0½§	1/0½§	11§	9½§	9½§	9½§
Bishop Auckland	9	9	10	9½	1/-	9	8	6½	6½	7½
Blackburn	11	11½	11½	11	10½	1/-	10½	7½	8	8
Blackpool	1/-	11	11	9½	8½	9½	10½	6	6	6
Bolton	11½	1/-	1/-	11½	11½	1/-	11½	7½	7½	7½
Bournemouth	8½	10	10	10	8½	10	9½	7½	7½	7½
Bradford	1/-	1/-	11½	1/-†	10†	10†	10½†	9½	9½	9½
Bridgwater	8½	8½	8½	8½	8½	8	7½	6	6	6
Brighton	9½	9½	9½	9½	—	9½	8	7	7	7
Bristol	1/-	1/-	1/-	1/-	—	1/-	11	9	9	9
Burnley	11	10½	11½	10½	9	10½	10½	7	7½	7½
Burton-on-Trent	9½	10½	10½	10	9	10½	9½	7½	7½	7½
Bury	1/-	1/-	11½	11	11	11½	10½	8	8½	8½
Cambridge	9½	9	9	9½	9½	9½	7½	6	6	6
Cardiff	1/-	1/-	1/-	1/-	1/-	1/-	11	9	9	9
Chatham	9½	10	10	9‡	9‡	10	8½	7	7	7
Chelmsford	8	7½	8½	9	—	7½	6½	5	5	6½
Cheltenham	9½	9½	9½	9½	—	9½	9½	6½*	6½*	6½
Chester	10½	11	11	11	11	11	10	6½	7½	7½
Chesterfield	9	10½	10	8	9	8½	8½	5½	5½	5½
Colchester	8	8½	8½	9	8	9	6	5½	5½	5½
Coventry	1/0½	1/0½	1/0½	1/0½	1/0½	1/0½	11½	10	10	10½
Crewe	9	9½	9	10½	10	9½	10	7	7	7½
Darlington	11½	11½	11½	11½	10	9½	9	8½	8½	8½
Derby	11	11	11	11	11	10½	9½	8	8	8½
Doncaster	9½	10½	10½	9½	9½	9	8	6½	6½	7½
Dudley	9½	11	11	10	10	9½	8½	8	8	8½
Durham	9½	9½	9½	9½	10	9	8½	6½	6½	7
East Glam. and Mon. Valleys	10	10	10	10	—	—	9	7	7	7
Exeter	9½	9½	9½	9½	9½	9	8½	8	8	8
Folkestone	8½	9	9	9½	8½	9	8	7	7	7
Gloucester	8	9½	9½	8½	8½	9½	8½	7	7	7
Grantham	8	8	7½	7½–8	7½–8	8½	6½	5	5	5
Grays	—	11	11	—	—	11	9½	9	9	9
Grimsby	9	10	10½	9½	10	10	9	8	8	8
Great Yarmouth	8	8	8	—	8	8	6½	5	5	—
Halifax	11½	11½	11½	9	9	11	10	8	8	8
Harrogate	10½	9½	10	9	8	10	9½	7½	7½	7½
Hartlepools	11½	1/-	1/-	1/-	1/-	10½	9	9	9	9½
Hastings	8½	8	8	8½	8	8	7	6½	5½	6½
Hereford	10	10	10	10	10	10	9	7½	7½	7½
Huddersfield	1/-	11	11½	9½	11	9	8½	9	9	9
Hull	11½	11½	11½	11½	11½	1/-	9	9½	9½	9½
Ipswich	9½	9½	9½	10	9½	10	8	7	7	7
Lancaster	10½	10½	10	10	9½	10	9	6	6½	7½
Leamington Spa	9	9½	9½	8½	9	9½	8½	6½	6½	6½
Leeds	1/0½	1/0½	1/-	11½	11½	1/-	10	9½	9½	9½
Leicester	11½	11½	11½	11½	11	10½	9	9	9	9½
Lincoln	10½	9½	9½	9	8½	10½	8	6	5½	6½
Liverpool	1/1	1/1	1/1	1/0½	1/0½	1/-	11½	9	9	9
Llanelly	9½	9½	9½	8½	9	8½	8	5½	5½	5½
London	1/1½	1/1½	1/1½	1/1½	—	1/2	11	10	10	10
Loughborough	10	10	10½	10	10	10	9	8½	8½	9½
Luton	9½	10½	10½	8½	9	8½	9½	8½	8½	8½
Maidstone	10	10	10	10	10	10	9	7	7	7
Manchester	1/1	1/1	1/1	1/0½	11	1/1	11½	9	9	9
Mansfield	8½	11	10½	8½	—	10½	9	8	8	8
Merthyr Tydfil	11	11	11	11	11	11	10	8½	8½	8½
Middlesbrough	11½	1/-	1/-	1/-	1/-	10½	9	9	9	9½
Newcastle-on-Tyne	1/0½	1/0½	1/0½	1/0½	1/-	10½	11	9½	9½	9½
Newport, Mon.	11½	11½	11½	11½	11½	1/0½	10½	8½	8½	8½
Northampton	11	11	11	11	11	11	10	8½	8½	8½
Norwich	8½	8½	8½	8½	8	8½	7½	6	6	6
Nottingham	1/-	1/-	1/-	11½	11½	1/1	11½	9½	9½	10
Oldham	1/-	1/-	1/1	11½	11	11½‖	11½	8½	8½	9
Oxford	9½	9	9	9	9	9	8	6½	6½	6½
Plymouth	10*	10*	10*	10*	10*	10*	8½*	7*	7*	7*
Pontypridd	11	11	11	11	11	11	10	8	8	8
Portsmouth	10½	10½	10½	10½	10½	9½	8½	8	8	8
Preston	10½	1/-	11	10½	10½	11	10½	7½	8	8
Reading	9	9½	9½	10½	—	9½	8½	6½*	6½*	6½*
Rochdale	11½	11½	11½	11½	10½	1/0½	11	8½	8½	9
Rochester	8	10	10	9	9	10	8½	7	7	7
Rugby	11	11	11	11½	1/-	11	10	8	8	9
St. Albans	10	10	10	10	10	10	9	8	8	8½
St. Helen's	1/-	1/-	1/-	1/-	1/-	11	10½	7	7½	8
Scarborough	9	9½	9	8½	8	9	8	7	7	7
Sheffield	10½	11½	1/-	9½	10½	1/-	10	9	9	9
Shrewsbury	8½	9½	9½	9½	—	8½	7	6½	6½	6½
Southampton	11½	11½	11½	11½	11½	11½	10½	8½	8½	8½
Southend-on-Sea	9	9	9	9	Piecework	9	7	6	6	6
Southport	11½	11	11½	11	11	11	11	7	7½	7½
South Shields	1/0½	1/0½	1/0½	1/0½	1/-	10½*	11	9½	9½	9½
Stockport	1/1	1/0½	1/0½	11½	10½	1/-	10½	8½	9	9
Stockton-on-Tees	11½	1/-	1/-	1/-	1/-	10½	9	9	9	9½
Stoke-on-Trent	10	11½	11½	10	—	10½	10½	8½	8½	8½
Stroud	9	9	9	9	9	9	8½	7	7	7
Sunderland	1/-	1/-	1/-	11½	1/-	9½	11	9	9	9
Swansea	1/-	1/-	1/-	1/-	1/-	1/-	11½	9	9	9
Taunton	8	8	8	8	—	8	7	5½	5½	5½
Torquay	8	8	8	8	8	8	8	6	6	6
Wakefield	10	11	10½	9½	8½	10½	10	9	9	9
Walsall	11½	11	11	11	11	11	9½	8½	8½	8½
Warrington	8½	1/-	11½	1/-	8½	11½	10½	7	7½	7½
West Bromwich	11	11	10½	10½	—	10	9	8	8	8
Wigan	11½	1/-	11½	11	10½	11½	10½	9	9	9
Windsor	9	9	9	10	—	9	—	6	6	6
Wolverhampton	1/-	1/-	1/-	11	11	1/-	10½	9	9	9
Worcester	9	9½	9½	9½	9½	9½	8	7½	7½	7½
York	9½	9½	9½	10½	10	10½	8½	8½	8½	8½

The Masons' rate given is for bankers; fixers usually ½d. per hour extra.
* War bonus of 2s. per week granted. †War bonus of 3s. per week granted. ‡War bonus of 2s. 6d. per week granted.
‖ War bonus of 6s. per week granted. § 1d. per hour extra for men engaged on munition work.

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; L.G.B. for Local Government Board; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

CHELTENHAM.—The T.C. has approved the estimate of the Surveyor of £1,101 13s., for private improvement works at Eldorado-road. Plans passed: Alterations, 368, High-street, for Lennards, Ltd.; new shop front, Bath-road, for Mr. T. D. Boulton.

DUNFERMLINE.—Dunfermline District Committee has approved a plan submitted by the British and Foreign Sailors' Society, showing proposed additions of billiard rooms and bath rooms to the Naval Institute, Charlestown: and Messrs. Fraser & Carmichael, merchants, Maygate, Dunfermline, showing proposed internal alterations including the addition of a bath-room and the conversion of a billiard room into two bedrooms at the Albert Hotel, North Queensferry.

EASTBOURNE.—A special committee is considering the question of the L.G.B.'s conditional offer of a subsidy towards the cost of a housing scheme.

FINSBURY PARK.—Funds are being raised for the erection of a church and institute at Finsbury Park in connection with the North London Institute for the Deaf and Dumb.

GLASGOW.—The Corporation General Finance Committee has approved of the proposal to erect a temporary building on the Bunhouse grounds for the purpose of holding the British Industries Fair in the city in 1918, and for similar exhibitions and shows. The building will cost about £17,000. Glasgow Dean of Guild Court has granted the following linings: The United Alkali Co., Ltd., chemical manufacturers, St. Rollox, to erect additional works there; and Hamilton Caldwell & Sons, Ltd., leather manufacturers, 108, Boden-street, Bridgeton, to erect a store there.

KETTERING.—Plans approved by the U.D.C.:—Allen & Caswell, box shed; H. G. Smith, additions to leather stores.

PORTSMOUTH.—Having considered a scheme for the improvement of the area from Crasswell-street to Commercial-place, the Housing Committee has instructed the Town Clerk to open up negotiations with owners of properties with a view to purchasing the sites.

ROMFORD.—The Romford R.D.C. has approved a plan for alterations and additions to a house in Isabel-road, Hornchurch, for Mr. S. Savill; and a plan for cesspool and drainage of Marks Gate Farm, for the Right Hon. Lord Roundhay.

WARRENBY.—The Guisborough R.D.C. has approved plans for 300 houses at Warrenby.

WARWICKSHIRE.—The Education Committee has decided to paint the exteriors of Beausale, Water Orton and Whichford Schools; to whiten, colour and paint Burton Dassett, Great Alne and Southam Schools; and to rebuild walls at Long Lawford and Henley-in-Arden Schools.

* See also our list of Competitions, Contracts, &c., on page 96.

NEW COMPANIES.

The undermentioned particulars of new companies recently registered are taken from the Daily Register compiled by Jordan & Sons, Ltd., Company Registration Agents, Chancery-lane, W.C.:—

SINFIELD & COMPANY, LTD. (147,879). Registered July 4. To acquire the business of builders, contractors and general joiners, &c. Nominal capital £2,000 in 2,000 £1 ordinary shares.

ROTHERHAM BUILDERS' SUPPLY COMPANY, (1917), LTD. (147,872). Registered July 3. The nature of the business is indicated by the title. Nominal capital £5,000 in 5,000 £1 shares.

C. S. EDGERLEY & Co., LTD. (147,993). Registered July 17. To carry on business as contractors for public and private works, builders, engineers, merchants and dealers in sand, lime, bricks, &c. Nominal capital £5,000, in 5,000 £1 shares.

VIGOR & Co. (POPLAR), LTD. (148,123), 44 Pennyfields, Poplar, London. Registered July 31. To carry on business as contractors and decorators. Nominal capital, £12,500 in 1,000 £10 Preference Shares and 2,500 £1 ordinary shares.

S. T. TAYLOR & SONS, LTD. (148,146), Tynos Works, Scotswood, Newcastle-upon-Tyne. Registered August 2. To carry on the trade or business of builders, contractors, joiners, carpenters, metal founders, &c. Nominal capital £15,000 in 15,000 £1 shares.

PUDLO

MAKES CEMENT WATERPROOF.

DRAIN PIPE JOINTS.

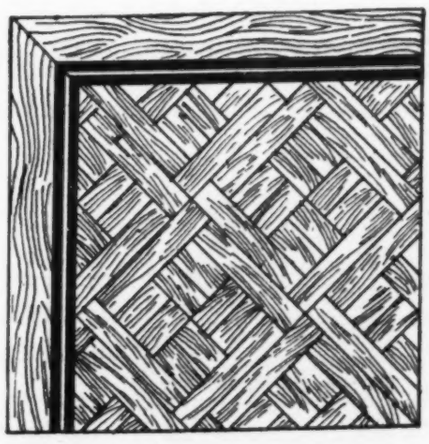
A WATERPROOF JOINT FREE FROM CRACKS.

Here is a specification which numerous builders are using because it is the safest and most waterproof sanitary pipe joint :—

3 parts of coarse washed sand.
1 part of Portland Cement.
2 lbs. of Pudlo to every 100 lbs. of Cement.

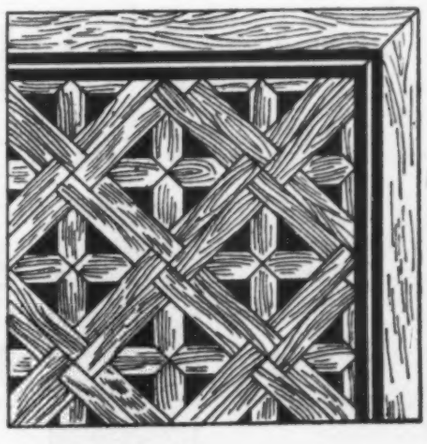
It is found that the joint is made more quickly because of the free working of the cement when Pudloed. There is also a saving over neat cement of 14s. per ton, when cement costs 40s., or more, per ton. Ask for details.

BRITISH! and apart from patriotism, the best! Manufactured solely by Kerner-Greenwood & Co., Limited, St. Anns, King's Lynn.



Specialists in Parquetry Flooring

ESTIMATES FREE



THE CAMBRIDGE WOOD BLOCK & PARQUETRY Co.

LIMITED

71, CAMBRIDGE ROAD
HAMMERSMITH. W.6.

Specify and use only brands which have passed the test of time.

Leading Cement Brands OF THE British Portland Cement Manufacturers, Limited,

4, LLOYDS AVENUE,
LONDON, E.C.

Telegrams:
"Britporcem, Fen, London."

Telephone:
Avenue 6404 (Private Exchange).

You may safely specify and use

CALLENDER'S

NATURAL ASPHALTE

READY ROOFING

All British

Made in London

SAMPLE AND BOOKLET FREE.

ROLLS READY FOR IMMEDIATE USE.
NO DELAY.

Write to — *Easily Fixed.*

GEORGE M. CALLENDER & CO., Ltd.
(*Dept. 7*), 25, Victoria St., London, S.W.

FARMILOE'S
Hard Gloss Preservative Paint

A High-class Enamel Paint that Dries with a Hard Brilliant Surface.

For Inside or Outside Use.

Tint Sheet sent on Application.

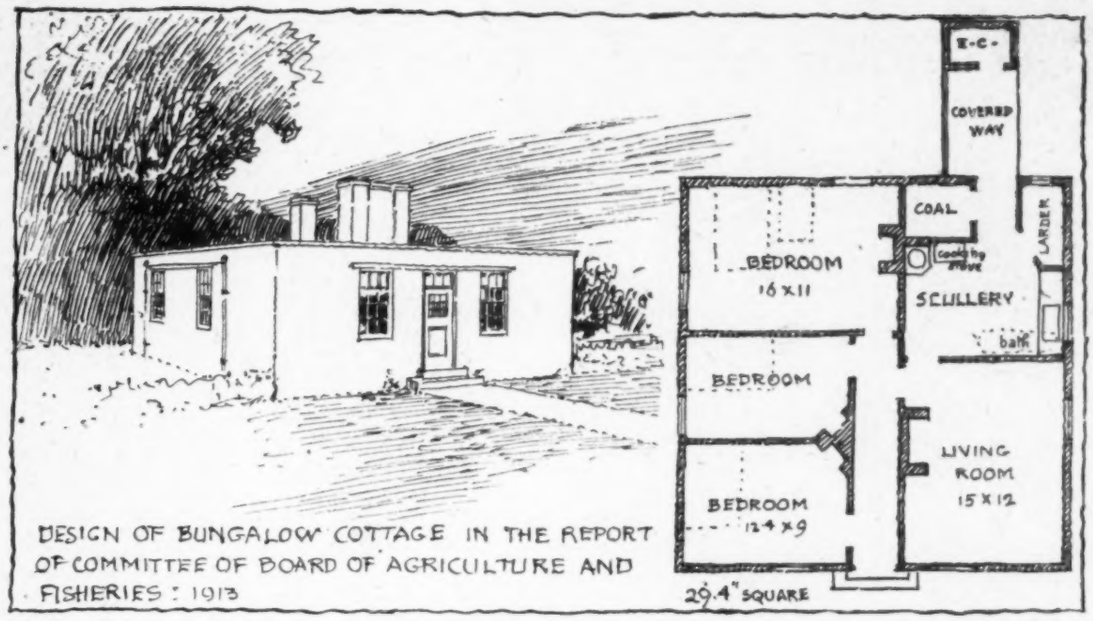
Sole Manufacturers—

T. & W. FARMILOE, LTD

Offices: ROCHESTER ROW,

WESTMINSTER, S.W.

'Phone: Victoria 4480 (Private Branch Exchange).



DESIGN OF BUNGALOW COTTAGE IN THE REPORT OF COMMITTEE OF BOARD OF AGRICULTURE AND FISHERIES: 1913

(See p. 97.)

Competitions, Contracts, &c.

For some contracts still open, but not included in this List, see previous issues. **Those with an asterisk (*) are advertised in this number.** Contracts, —; Tenders, —; Public Appointments, xviii; Auction Sales, xviii. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

*****It must be understood that the following paragraphs are printed as news, and not as advertisements; and that while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur.**

BUILDING AND PAINTING.

AUGUST 20.—**Ripon.**—RESTORATION OF ROOF.—The Corporation invite tenders for the Carpenters' and Joiners' Work required in the Restoration of the Roof of the Spa Baths. Particulars of Messrs. Bland and Bown, Architects, Harrogate.

AUGUST 22.—**Newport (Mon.).**—PAINTING.—For outside painting the Newport Section of the 3rd Western General Hospital. Specification, &c., of Mr. A. H. Rees, Clerk to the Guardians, Union Offices, Queen's-hill, Newport, Mon. Deposit, £1 1s.

AUGUST 23.—**Manchester.**—EXTENSIONS.—Manchester Corporation Gas Department invite tenders for the extension of an existing cartshed to form a garage for motor wagons, at their Bradford-road Station. Specification, &c., of Mr. Fredk. A. Price, Superintendent, Gas Department, Town Hall, Manchester. Deposit £1 1s. Drawings may be seen on application to Mr. W. Newbigging, Engineer, at his office, Rochdale-road Gasworks, Manchester.

AUGUST 27.—**Dublin.**—PAINTING.—The Directors of the Great Northern Railway Co. (Ireland) invite tenders for painting the Company's Locomotive Department offices at Dundalk Station. Specification in the Engineer's Office at Dublin or Belfast; copies from Mr. T. Morrison, Secretary, Secretary's Office, Amiens-street Station, Dublin. Deposit £1 1s.

AUGUST 30.—**London.**—PAINTING, &c.—The Guardians of the Hamlet of Mile End Old Town invite tenders for internal painting, &c., to the western block of the Mile End Military Hospital, and also for painting and repairs at the Guardians' offices. Specifications, &c., by their architect, Mr. Edmund J. Harrison, No. 23, Berkley-road, Crouch End, of the Clerk to the Guardians, Bancroft-road, E. Deposit (Western Block) £3 3s., and (Guardians' Offices) £1 1s.

AUGUST 31.—**Blaenavon.**—PAINTING, &c.—Blaenavon Medical Society invite tenders for cleaning, Painting, &c., of Works Hospital. Specifications with the Secretary, 38, New William-street, Blaenavon.

NO DATE.—**Glenbrook (Co. Cork).**—RESTORATION.—For the restoration of Glenbrook House, Glenbrook, co. Cork, for Mr. Oliver S. Piper, J.P. Plans, &c., of Mr. James F. M'Mullen, M.R.I.A.I., architect, 30, South Mall, Cork.

FURNITURE, MATERIALS, etc.

AUGUST 20.—**London.**—LOCKERS, TABLES, &c.—Supply to the Commissioners of His Majesty's Works, &c., of Lockers and bedside tables, 500 typists' chairs. Forms, &c., of the Controller of Supplies, H.M. Office of Works, &c., King Charles-street, Westminster, London, S.W. 1.

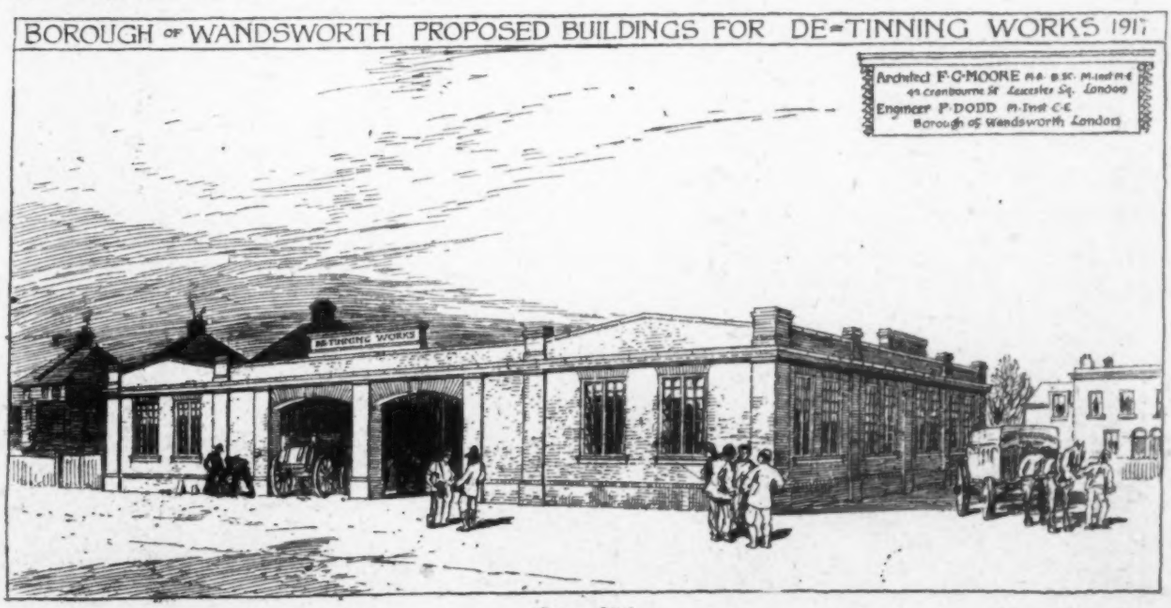
ROAD, SANITARY, AND WATER WORKS.

AUGUST 25.—**Chelmsford.**—FOOTPATH.—The T.C. invite tenders for the construction of a stone-paved footpath in Rectory-lane and Bishops Hall-lane. Specification, &c., of Mr. Percival T. Harrison, A.M.Inst.C.E., Borough Engineer, Municipal Offices, Chelmsford.

AUGUST 29.—**Rothwell.**—MATERIALS.—Supply to the U.D.C. of the following materials, for a period of six months ending March 31st, 1918:—Highways Dept.—Broken Granite, whinstone, and dross; broken tarred slag or limestone; hard York setts and pavors; flags, kerbs, &c. Sanitary Dept.—Earthenware pipes, gulleys, manhole covers, &c. Waterworks Dept.—Sluice valves, hydrants, &c. Specifications, &c., of the respective departments at the Council Offices, Rothwell, near Leeds.

Public Appointment.

★SEPTEMBER 5.—LITHERLAND.—Applications are invited for appointment of Surveyor and Inspector of Nuisances. Particulars from Mr. J. W. Allen North, Clerk and Solicitor to the Council, Council Offices, Litherland.


BOROUGH OF WANDSWORTH PROPOSED BUILDINGS FOR DE-TINNING WORKS 1917
Architect F.C.MOORE M.A. B.Sc. M.Inst.M.E.
49 Cranbourne St. Leicester Sq. London
Engineer P.DODD M.Inst.C.E.
Borough of Wandsworth London
DE-TINNING WORKS

(See p. 104)

THE DE-TINNING INDUSTRY.

What becomes of all the rubbish in the world is a problem which most of us are willing to forget unless some offensive display of it greets us in the streets early in the day. Anyone who takes up life in the country, with some decent garden environment, is compelled to take definite steps for rubbish disposal, and then realizes how much there is that will not automatically disappear or yield to the incinerator. In these days of the great canning industries the old tin can has been one of the most persistent and difficult items of refuse, but the day of its redemption has come, and now we have properly designed buildings for its reincarnation to the world of active use. The waste of tin cans has indeed been the greater by reason of their indestructibility and the waste of labour in dealing with them. It appears that for years the discarded metal tins have been used and dealt with in Germany to the forming of a lucrative trade, but the British De-Tinning Co. is now at work to carry on this industry in our own country, and has already received very extensive support from municipal authorities. We illustrate two buildings for the carrying out of the processes of de-tinning, for the Borough of Southwark, Mr. Arthur Harrison, engineer, and for the Borough of Wandsworth, Mr. P. Dodd, engineer, from the designs of Mr. F. G. Moore, M.A., B.Sc., architect, London and Torquay. The Southwark building has been already commenced and a temporary factory is in use at Wandsworth.

In reference to the scheme for the utilisation of municipal waste, Mr. Morgan L. Jones recently said, as reported in the *Times*, that for many years past the country had practically made the Germans a present of the raw material for a number of their large industries together with valuable by-products. He was intimately acquainted with and in possession of improvements on the various processes by which the Germans transformed their old tins into a huge variety of valuable metal and manufactured goods, and he would show how the industry might be captured for this country. The chief commodity produced by his process was steel plates. The time taken in manufacturing a tin plate from a steel bar was about 158 hours. By way of comparison, the de-tinning of old tins by his process took about 24 hours, so that they produced quite as good a sheet in two days as the manufacturers of new sheet in a fortnight, with an enormous saving of time and money into the bargain. The British plate industry consumed considerably over 1,000,000 tons of coal per annum, over 1,000,000 tons of steel bars, 16,000 tons of tin, and 3,500 tons of palm oil. The wages amounted to £2,300,000. A considerable quantity of their yearly output was, of course, turned into the tins they had been in the habit of eventually presenting to Germany, so that the economy they could easily effect was exactly what they had been giving away. On the very lowest estimate the Germans had taken from this country as ship ballast 30,000 tons of old tins annually at an average cost of £1 per ton. Apart from the steel recovered from these, which could be employed in the making of any steel article from a light rail upwards, fully one per cent. of tin was recoverable, and at the pre-war price of £150 per ton that meant that the tin alone on each £1,000 worth of old tins sent to Germany had been worth £1,500.

The proposition bids fair to become one of world-wide importance, and Mr. Morgan L. Jones is to be congratulated on his patriotism in dealing with this important matter in such an able way. The Company's offices are at 47, Victoria-street, Westminster, S.W. 1.

BOOKS.

Electrical Engineering Practice. T. W. MEARES, F.R.A.S., &c. Published by E. & F. N. Spon, Ltd., Haymarket.

THIS comprehensive work deals with a wide group of subjects, beginning with a clearly stated explanation of terms, and ranging over electric lighting, generating plant, water power, traction vehicles and haulage, mining applications, transmission, testing, fault-finding and metering.

Lighting and domestic installation, together with power stations, occupy about half the book, and are clearly and instructively dealt with.

In the chapter on road vehicles the author is emphatic on the value of the electric car with storage batteries, and predicts a large extension of the type both for pleasure cars and delivery vans, the choice of accumulators receiving careful treatment. The merits and limitations of the electric motor 'bus with overhead current supply are well thrashed out, and its value for opening up new districts before going to the expense of laying a permanent track, are lucidly and impartially set forth. Mining gets a chapter to itself, ranging from winding engines to safety lamps, and dealing at length with an interesting system of winding gear in which power is alternately stored and delivered by a heavy flywheel. Needless to say, the transmission is electrical, as no steam or gas plant could possibly have the requisite flexibility. Perhaps these few paragraphs do more to impress on a student the marvellous possibilities of specialising designs to meet special conditions than all the rest of the book, and a study of the manner in which the apparently impossible feat of getting a constant hauling speed with a decelerating flywheel at one end and a variable load at the other end of the chain of transmission is a revelation to the uninitiated.

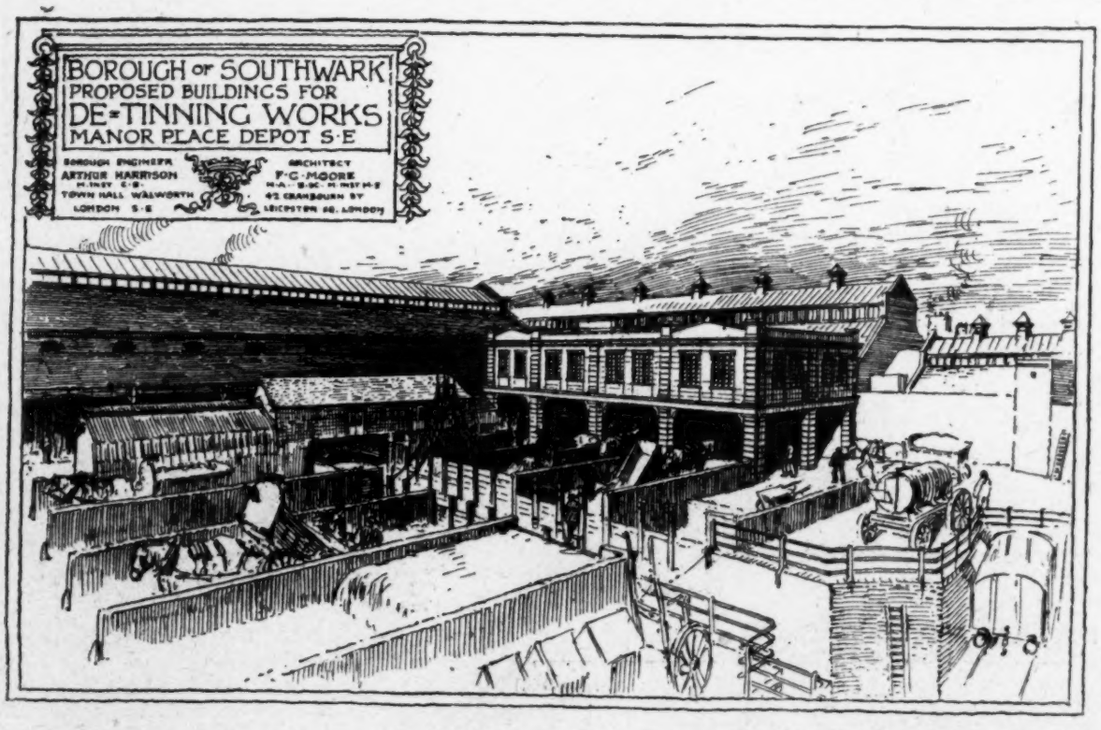
On the other hand the author is careful to tell the reader what electricity will not do and the futility of throwing out good old-fashioned winding engines in favour of electric plant, when a greater economy can be effected by the installation of low-pressure turbines.

Unfortunately electric cranes and the smaller transporting devices scarcely receive mention, but on the other hand the writer's Indian experience and his knowledge of trans-Atlantic practice are continually cropping up and form quite a feature in the book, cooling and ventilating in particular receiving unusually ample treatment.

Much praise is due to the author for the extreme care with which he has classified his heterogeneous material and welded the whole together, not only under suitable and distinctive headings, but interwoven by innumerable cross references and an admirably comprehensive index. References as to where further information may be sought are freely given, and numerous tables enable the author to dispense with all but the simplest mathematical formulæ.

TRADE NEWS.

The following extract is from a recent letter received by Messrs. Kerner-Greenwood & Co., King's Lynn, from Messrs. McLeod & Gardner, Ltd., builders' merchants, Hastings, N.Z. "One of our builders used a powder to waterproof cement on a damp section of a rough cast wall. A day or two afterwards, really before the work had time to set, there was very heavy rain for two or three days, when the district suffered from very heavy floods; and upon examination of the work afterwards, it was discovered that the new waterproofed cement work was quite dry, whereas the damp had soaked right through the old non-waterproofed work. The result is that the owner is now having all his walls Pudloed."



PRICES CURRENT OF MATERIALS.

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

Per 1,000 Alongside, in River Thames.	£ s. d.
Best Stocks	2 5 0
Picked Stocks for Facings	2 17 0

Per 1000, Delivered at Railway Depot, London.	£ s. d.		£ s. d.
Flettons	1 18 0	Best Blue Pressed Staffordshire	5 15 0
Best Fareham Red	4 0 0	Do. Bullnose	6 0 0
Best Red Pressed Ruabon Facing	6 0 0	Best Stourbridge Fire bricks	9 5 0

Glazed Bricks—			
Best White, Ivory, and Salt Glazed Stretchers	14 17 6	D'ble Str'tch'rs	20 7 6
Headers	14 7 6	D'ble Headers	17 7 8
Coins, Bullnose and 4½in. Flats	18 7 6	One Side and two Ends	21 7 6
		Two Sides and one End	22 17 6
		Splays and Squints	19 17 6

Glazed bricks priced at so much each, 25 per cent. advance on list.

Second Quality, £1 per 1,000 less than best.

	s. d.	
Thames Ballast	8 9	per yard, delivered.
Pit Sand	11 0	
Thames Sand	12 0	" " "
Best Washed Sand	12 0	" " "
¾ in. Shingle for Ferro-Concrete	11 6	" "

Per ton, delivered.	£ s. d.		£ s. d.
Best Portland Cement	2 10 0	..	2 13 0

Do. £2 6s. alongside in 80-ton lots.
Ferrocrete 2s. 6d. per ton extra on above.
Best Ground Blue Lias Lime 1 7 6 at rly. depot.
NOTE.—The cement or lime is exclusive of the ordinary charge for sacks. The sacks are charged at 1s. 3d. each and credited at 1s. each if returned in good condition within three months.
Grey Stone Lime ..... 47s. 0d. per ton delivered.
Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	1 7
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	1 8½
Do. do. delivered on road waggons at Nine Elms Depot	1 9½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Westbourne Park, G.W.R., South Lambeth, G.W.R., or Nine Elms, or L. & S.W.R., per ft. cube	2 5½
Do. do. delivered on road waggons at Pimlico Wharf or Nine Elms Depot, per ft. cube..	2 6½
White basebed, 2d. per ft. cube extra.	

RANDOM BLOCKS—Per Ft. Cube, delivered at Rly. Dpot.

	s. d.		s. d.
Ancaster in blocks	2 0	Closeburn Red Freestone	2 2
Beer in blocks	1 7½	Red & White Mansfield random block	2 9
Grinshill in blocks	2 4	Yellow Magnesian Limestone do. do	3 3
Darley Dale in blocks	2 5		

YORK STONE—*Robin Hood Quality.*

Per Ft. Cube, Delivered at Railway Depot	s. d.
Scappled random blocks	3 4

Per Ft. Super. Delivered at Railway Depot.

6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 5
4 in. rubbed two sides, ditto	2 8
3 in. sawn two sides slabs (random sizes)	1 0½
2 in. to 2½ in. sawn one side slabs (random sizes)	0 8½
1½ in. to 2 in. ditto, ditto	0 6½

HARD YORK—

Per Ft. Cube, Delivered at Railway Depot.	
Scappled random blocks	3 0

Per Ft. Super., Delivered at Railway Depot.

6 in. sawn two sides landing to sizes (under 40ft. super.)	2 3
6 in. rubbed two sides ditto	2 7
3 in. sawn two sides slabs (random sizes)	1 0
2 in. self-faced random flags	0 5

TILES.

Per 1,000 f.o.r. London.	£ s. d.
Best machine-made tiles or hand-made sand-faced tiles from either Broseley or Staffordshire district	3 0 0
Ornamental ditto	3 2 6
Hip and valley tiles (per dozen)	0 6 0

SLATES.

Per 1,000 of 1,200 f.o.r. London.	£ s. d.
Best Blue Bangor Slates, 20 by 10	13 5 0
" " 16 by 8	6 12 6
First quality " 20 by 10	12 15 0
" " 16 by 8	6 10 0
Best Blue Portmadoc 20 by 10	13 5 0
" " 16 by 8	6 12 6
First quality " 20 by 10	12 12 6
" " 16 by 8	6 7 6

WOOD.

BEST BUILDING REDWOOD. Imported sizes.

Deals: 4 in. by 12 in., 4 in. by 11 in., 3 in. by 11 in., 4 in. by 9 in., and 2 in. by 11 in.
3 in. by 9 in., 2½ in. by 9 in., and 2 in. by 9 in.

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn.

WOOD (*Continued*).

BEST BUILDING REDWOOD.

Battens: 2 in., 2½ in., and 3 in. by 8 in.
2 in., 2½ in., and 3 in. by 7 in.
2 in., 2½ in., and 3 in. by 6 in.
Scantlings: 2 in. by 3 in., 2 in. by 3½ in., 2 in. by 4 in., 2 in. by 4½ in.
3 in. by 4 in., and 3 in. by 4½ in.
Boards: 1 in., 1¼ in., and 1½ in. by 6 in. and 7 in.
¾ in.
Seconds
Sawn pitch pine logs (about 35 cu. ft. average)
Do. 6 in. to 10 in.

Best Pitch Pine Deals
Under 2 in. thick

JOINERS' WOOD

White Sea First Quality Red: 4 in. by 11 in...
3 in. by 11 in., and 2 in. by 11 in.
4 in. by 9 in.
3 in. by 9 in., and 2½ in. by 9 in.
3 in. by 11 in. boards
7 in. and 8 in. battens
7 in. and 8 in. boards

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn.

Archangel White Deals—
Best 3 in. by 9 in. and 10 in. and 11 in.
Seconds, do.
U.S. Battens

Prepared Floorings and Matchings. Seconds Swedish Red and equal—
1¼ in. by 6½ in. planed and shot
1¼ in. by 6½ in. planed and matched
1 in. by 6½ in. planed and shot
1 in. by 6½ in. planed and matched
⅞ in. by 6¼ in. planed, matched, and beaded, or V jointed
1 in. by 6½ in. do.

Columbian or Oregon Pine, best quality
Yellow Pine—First regular sizes
Oddments
Seconds, regular sizes
Oddments
Kauri Pine—Planks per ft. cube

Dry Wainscot Oak, per ft. super, as inch	0 1 0	..	0 1 6		
⅞ in. do.	0 0 10	..	0 1 2		
Dry Mahogany—Honduras, Tabasco, per ft. super, as inch	0 1 6	..	0 2 6		
Cuba, Mahogany	0 1 6	..	0 2 6		
Dry Walnut, American, per ft. super, as inch	0 1 6	..	0 2 6		
French, "Italian," Walnut	0 1 6	..	0 2 6		
Teak, per load (Rangoon or Moulmein)	30 0 0	..	40 0 0		
Do. do. (Java)	30 0 0	..	40 0 0		
American Whitewood planks, per ft. cube	0 8 6	..	0 10 0		
Glue, per cwt.	5 0 0	..	5 5 0		

METALS.

JOISTS, GIRDERS, &c.

Prices controlled by the Ministry of Munitions.

Rolled Steel Joists, ordinary sections, basis price
Plain Compound Girders, ordinary sections
Plain Compound Stanchions
Angles, Tees, and Channels, ordinary sections
Flitch Plates
Cast Iron Columns and Stanchions, plain ordinary patterns

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £4 net value delivered direct from works. 5 per cent. less carriage forward if sent from London stocks.)

	Tubes.		Fittings.
Gas	45	....	50
Water	40	....	47½
Steam	35	....	45
Galvanised gas	27½	....	42½
" water	18½	....	40
" steam	12½	....	37½

L.C.C. SOIL PIPE—

	Pipes Coated.			London Prices. Bends.			Branches.	
		s.	d.	s.	d.		s.	d.
2 in.	per yd..	2	8	2	1	each	2	6
2½ in.	" ..	3	1	2	4	"	3	2
3 in.	" ..	3	10	2	6	"	3	9
3½ in.	" ..	4	2	3	2	"	4	4
4 in.	" ..	4	8	3	6	"	5	0

RAIN-WATER PIPES, &c.

	Pipe.			London Prices. Bends.			Branches.	
		s.	d.	s.	d.		s.	d.
2 in.	per yd..	2	0	1	2	each	1	6
2½ in.	" ..	2	2	1	5	"	2	0
3 in.	" ..	2	6	1	9	"	2	6
3½ in.	" ..	3	0	2	1	"	3	0
4 in.	" ..	3	3	2	6	"	3	8

L.C.C. DRAIN PIPES,—9 ft. lengths. London Prices.
4 in., 5s. 3d. .. 5 in., 6s. 3d. .. 6 in., 7s. 6d.

METALS (*Continued*).

Per ton in London.	£ s. d.		£ s. d.
IRON—			
Common Bars	16 10 0	to	17 0 0
Staffordshire Crown Bars—good merchant quality	16 10 0	..	17 10 0
Staffordshire "Marked Bars"	17 10 0	..	18 0 0
Mild Steel Bars	19 0 0	..	19 10 0
Steel Bars, Ferro-Concrete quality, £19 basis price.			
Hoop Iron, basis price	20 0 0	..	20 10 0
" Galvanised	33 0 0	..	—

(* And upwards, according to size and gauge.)

Sheet Iron Black—			
Ordinary sizes to 20 g.	22 0 0	..	22 10 0
" " 24 g.	23 0 0	..	23 10 0
" " 26 g.	24 0 0	..	24 10 0
Sheet Iron, Galvanised flat, ordinary quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	32 0 0	..	—
Ordinary sizes to 22 g. and 24 g.	32 0 0	..	32 10 0
Ordinary sizes to 26 g.	35 0 0	..	35 10 0
Sheet Iron, Galvanised, flat, best quality—			
Ordinary sizes to 20 g.	35 0 0	..	—
" " 22 g. and 24 g.	35 10 0	..	—
Ordinary sizes to 26 g.	38 10 0	..	—
Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 8 ft. 20 g.	31 0 0	..	—
Ordinary sizes, 22 g. and 24 g.	31 10 0	..	—
Ordinary sizes, 26 g.	32 0 0	..	—
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	24 10 0	..	—
Best Soft Steel Sheets, 20 g. and 24 g.	24 15 0	..	—
Best Soft Steel Sheets, 26 g.	26 10 0	..	—
Cut Nails, 3 in. to 6 in.	28 0 0	..	29 0 0

(Under 3 in., usual trade extras.)

LEAD, &c.

Delivered in London.	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	38 10 0	..	—
Pipe in coils	39 0 0	..	—
Soil Pipe	42 0 0	..	—
Compo pipe	42 0 0	..	—

NOTE—Country delivery, 20s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Orders for over 1 cwt. should be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N. 2 (E)], Hotel Victoria, S.W.
Allowance for old lead, £26 per ton.

COPPER—					
Strong Sheet ... per lb.	0	1	6	..	—
Thin "	0	1	8	..	—
Copper nails "	0	1	6	..	—
Copper wire "	0	1	8	..	—
BRASS—					
Strong Sheet "	0	1	6	..	—
Thin "	0	1	8	..	—
TIN—English Ingots "	0	2	6	..	—
SOLDER—Plumbers' "	0	1	1	..	—
Tinmen's "	0	1	5	..	—
Blowpipe "	0	1	7	..	—

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.				Per Ft.	
15 oz. fourths	4½d	26 oz. thirds		7½d.	
" thirds	5½d.	32 " fourths		8d.	
21 " fourths	5½d.	" thirds		9d.	
" thirds	6½d.	Fluted Sheet, 15 oz.		6½d.	
26 " fourths	6½d.	" 21 "		7½d.	

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4d.
⅛ Rough rolled and rough cast plate	4½d.
¼ Rough rolled and rough cast plate	4½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6d.
Ditto, tinted	7d.
Rolled Sheet	5d.
White Rolled Cathedral	5d.
Tinted do.	5½d.

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes.... per gallon	0 5 2
" " " in barrels.... "	0 5 3
" " " in drums.... "	0 5 6
Boiled " " in barrels.... "	0 5 6
" " " in drums.... "	0 5 9
Turpentine in barrels.... "	0 4 8
" in drums.... "	0 4 11
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	53 10 0
GENUINE WHITE LEAD PAINT— "Blackfriars," "Nine Elms," "Park," and other best brands (in 14 lb. tins) not less than 5 cwt. lots.. per ton delivered	69 0 0
Red Lead, Dry (packages extra) .. per ton	42 0 0

Orders for over 28 lb. of White Lead, White Lead Paint and Red Lead should be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N. 2 (E.)], Hotel Victoria, S.W.

Best Linseed Oil Putty	per cwt.	0 14 0
Stockholm Tar	per gallon	0 3 6
Filocol	per cwt.	0 11 6

VARNISHES, &c.

Per gallon.	£ s. d.
Fine Pale Oak	0 8 0
Pale Copal Oak	0 10 0
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 6
Superfine Hard-drying Oak, for seats of Churches	0 14 0
Fine Elastic Carriage	0 12 6
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 10 0
Finest Pale Durable Copal	0 18 6
Extra Pale French Oil	1 1 0
Eggshell Flatting	0 18 0
White-Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 8 0
Berlin Black	0 18 0
Knotting	0 [illegible]
French and Brush Polish	0 12 0

THE DE-TINNING INDUSTRY.

What becomes of all the rubbish in the world is a problem which most of us are willing to forget unless some offensive display of it greets us in the streets early in the day. Anyone who takes up life in the country, with some decent garden environment, is compelled to take definite steps for rubbish disposal, and then realizes how much there is that will not automatically disappear or yield to the incinerator. In these days of the great canning industries the old tin can has been one of the most persistent and difficult items of refuse, but the day of its redemption has come, and now we have properly designed buildings for its reincarnation to the world of active use. The waste of tin cans has indeed been the greater by reason of their indestructibility and the waste of labour in dealing with them. It appears that for years the discarded metal tins have been used and dealt with in Germany to the forming of a lucrative trade, but the British De-Tinning Co. is now at work to carry on this industry in our own country, and has already received very extensive support from municipal authorities. We illustrate two buildings for the carrying out of the processes of de-tinning, for the Borough of Southwark, Mr. Arthur Harrison, engineer, and for the Borough of Wandsworth, Mr. P. Dodd, engineer, from the designs of Mr. F. G. Moore, M.A., B.Sc., architect, London and Torquay. The Southwark building has been already commenced and a temporary factory is in use at Wandsworth.

In reference to the scheme for the utilisation of municipal waste, Mr. Morgan L. Jones recently said, as reported in the *Times*, that for many years past the country had practically made the Germans a present of the raw material for a number of their large industries together with valuable by-products. He was intimately acquainted with and in possession of improvements on the various processes by which the Germans transformed their old tins into a huge variety of valuable metal and manufactured goods, and he would show how the industry might be captured for this country. The chief commodity produced by his process was steel plates. The time taken in manufacturing a tin plate from a steel bar was about 158 hours. By way of comparison, the de-tinning of old tins by his process took about 24 hours, so that they produced quite as good a sheet in two days as the manufacturers of new sheet in a fortnight, with an enormous saving of time and money into the bargain. The British plate industry consumed considerably over 1,000,000 tons of coal per annum, over 1,000,000 tons of steel bars, 16,000 tons of tin, and 3,500 tons of palm oil. The wages amounted to £2,300,000. A considerable quantity of their yearly output was, of course, turned into the tins they had been in the habit of eventually presenting to Germany, so that the economy they could easily effect was exactly what they had been giving away. On the very lowest estimate the Germans had taken from this country as ship ballast 30,000 tons of old tins annually at an average cost of £1 per ton. Apart from the steel recovered from these, which could be employed in the making of any steel article from a light rail upwards, fully one per cent. of tin was recoverable, and at the pre-war price of £150 per ton that meant that the tin alone on each £1,000 worth of old tins sent to Germany had been worth £1,500.

The proposition bids fair to become one of world-wide importance, and Mr. Morgan L. Jones is to be congratulated on his patriotism in dealing with this important matter in such an able way. The Company's offices are at 47, Victoria-street, Westminster, S.W. 1.

BOOKS.

Electrical Engineering Practice. T. W. MEARES, F.R.A.S., &c. Published by E. & F. N. Spon, Ltd., Haymarket.

THIS comprehensive work deals with a wide group of subjects, beginning with a clearly stated explanation of terms, and ranging over electric lighting, generating plant, water power, traction vehicles and haulage, mining applications, transmission, testing, fault-finding and metering.

Lighting and domestic installation, together with power stations, occupy about half the book, and are clearly and instructively dealt with.

In the chapter on road vehicles the author is emphatic on the value of the electric car with storage batteries, and predicts a large extension of the type both for pleasure cars and delivery vans, the choice of accumulators receiving careful treatment. The merits and limitations of the electric motor 'bus with overhead current supply are well thrashed out, and its value for opening up new districts before going to the expense of laying a permanent track, are lucidly and impartially set forth. Mining gets a chapter to itself, ranging from winding engines to safety lamps, and dealing at length with an interesting system of winding gear in which power is alternately stored and delivered by a heavy flywheel. Needless to say, the transmission is electrical, as no steam or gas plant could possibly have the requisite flexibility. Perhaps these few paragraphs do more to impress on a student the marvellous possibilities of specialising designs to meet special conditions than all the rest of the book, and a study of the manner in which the apparently impossible feat of getting a constant hauling speed with a decelerating flywheel at one end and a variable load at the other end of the chain of transmission is a revelation to the uninitiated.

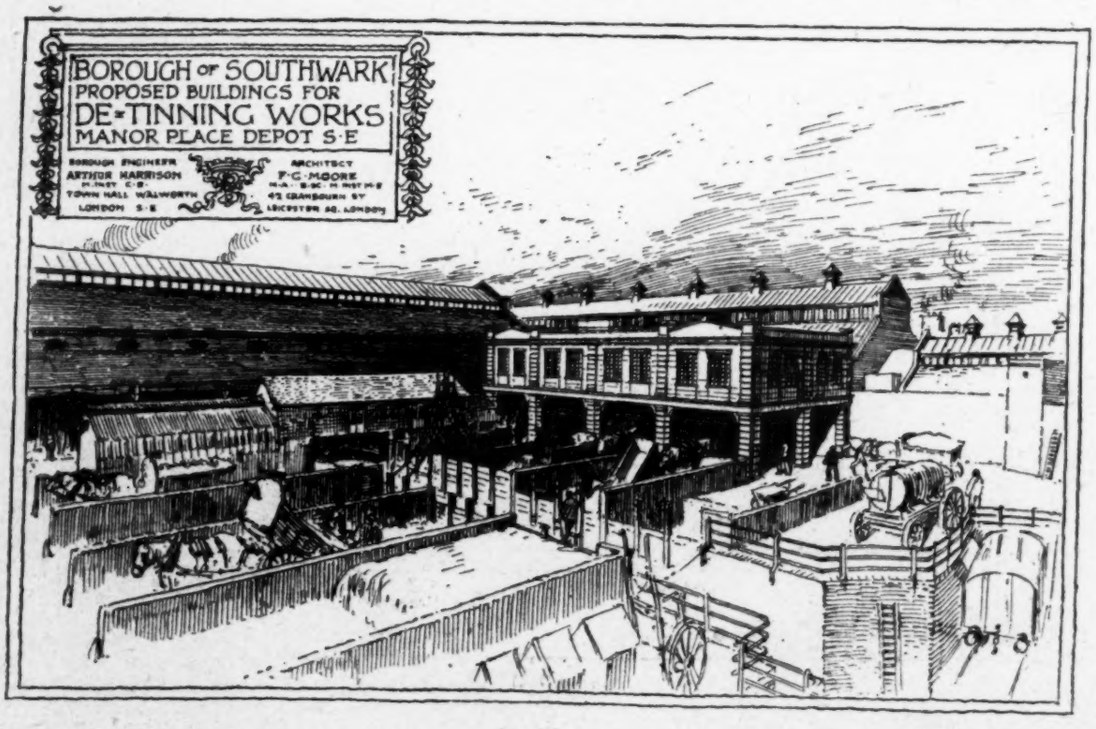
On the other hand the author is careful to tell the reader what electricity will not do and the futility of throwing out good old-fashioned winding engines in favour of electric plant, when a greater economy can be effected by the installation of low-pressure turbines.

Unfortunately electric cranes and the smaller transporting devices scarcely receive mention, but on the other hand the writer's Indian experience and his knowledge of trans-Atlantic practice are continually cropping up and form quite a feature in the book, cooling and ventilating in particular receiving unusually ample treatment.

Much praise is due to the author for the extreme care with which he has classified his heterogeneous material and welded the whole together, not only under suitable and distinctive headings, but interwoven by innumerable cross references and an admirably comprehensive index. References as to where further information may be sought are freely given, and numerous tables enable the author to dispense with all but the simplest mathematical formulæ.

TRADE NEWS.

The following extract is from a recent letter received by Messrs. Kerner-Greenwood & Co., King's Lynn, from Messrs. McLeod & Gardner, Ltd., builders' merchants, Hastings, N.Z. "One of our builders used a powder to waterproof cement on a damp section of a rough cast wall. A day or two afterwards, really before the work had time to set, there was very heavy rain for two or three days, when the district suffered from very heavy floods; and upon examination of the work afterwards, it was discovered that the new waterproofed cement work was quite dry, whereas the damp had soaked right through the old non-waterproofed work. The result is that the owner is now having all his walls Pudloed."



PRICES CURRENT OF MATERIALS.

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

Per 1,000 Alongside, in River Thames.	£ s. d.
Best Stocks	2 5 0
Picked Stocks for Facings	2 17 0

Per 1000, Delivered at Railway Depot, London.

	£ s. d.		£ s. d.
Flettons	1 18 0	Best Blue Pressed Staffordshire	5 15 0
Best Fareham Red	4 0 0	Do. Bullnose	6 0 0
Best Red Pressed Ruabon Facing	6 0 0	Best Stourbridge Fire bricks	9 5 0

GLAZED BRICKS—

Best White, Ivory, and Salt Glazed Stretchers	14 17 6	D'ble Str'tch'rs	20 7 6
		D'ble Headers	17 7 6
		One Side and two Ends	21 7 6
Headers	14 7 6	Two Sides and one End	22 17 6
Coins, Bullnose and 4½in. Flats	18 7 6	Splays and Squints	19 17 6

Glazed bricks priced at so much each, 25 per cent. advance on list.

Second Quality, £1 per 1,000 less than best.

	s. d.	
Thames Ballast	8 9	per yard, delivered.
Pit Sand	11 0	
Thames Sand	12 0	" " "
Best Washed Sand	12 0	" " "
¼ in. Shingle for Ferro-Concrete	11 6	" "

Per ton, delivered.

	£ s. d.		£ s. d.
Best Portland Cement	2 10 0	..	2 13 0

Do. £2 6s. alongside in 80-ton lots.
Ferrocrete 2s. 6d. per ton extra on above.
Best Ground Blue Lias Lime 1 7 6 at rly. depot.
NOTE.—The cement or lime is exclusive of the ordinary charge for sacks. The sacks are charged at 1s. 3d. each and credited at 1s. each if returned in good condition within three months.
Grey Stone Lime ..... 47s. 0d. per ton delivered.
Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	1 7
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	1 8½
Do. do. delivered on road waggons at Nine Elms Depot	1 9½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Westbourne Park, G.W.R., South Lambeth, G.W.R., or Nine Elms, or L. & S.W.R., per ft. cube	2 5½
Do. do. delivered on road waggons at Pimlico Wharf or Nine Elms Depot, per ft. cube	2 6½
White basebed, 2d. per ft. cube extra.	

RANDOM BLOCKS—Per Ft. Cube, delivered at Rly. Dpot.

	s. d.		s. d.
Ancaster in blocks	2 0	Closeburn Red Freestone	2 2
Beer in blocks	1 7½	Red & White Mansfield random block	2 9
Grinshill in blocks	2 4	Yellow Magnesian Limestone do. do	3 3
Darley Dale in blocks	2 5		

YORK STONE—*Robin Hood Quality.*

Per Ft. Cube, Delivered at Railway Depot	s. d.
Scappled random blocks	3 4
Per Ft. Super. Delivered at Railway Depot.	
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 5
4 in. rubbed two sides, ditto	2 8
3 in. sawn two sides slabs (random sizes)	1 0½
2 in. to 2½ in. sawn one side slabs (random sizes)	0 8½
1½ in. to 2 in. ditto, ditto	0 6½
HARD YORK—	
Per Ft. Cube, Delivered at Railway Depot.	
Scappled random blocks	3 0
Per Ft. Super., Delivered at Railway Depot.	
6 in. sawn two sides landing to sizes (under 40ft. super.)	2 3
6 in. rubbed two sides ditto	2 7
3 in. sawn two sides slabs (random sizes)	1 0
2 in. self-faced random flags	0 5

TILES.

Per 1,000 f.o.r. London.	£ s. d.
Best machine-made tiles or hand-made sand-faced tiles from either Broseley or Staffordshire district	3 0 0
Ornamental ditto	3 2 6
Hip and valley tiles (per dozen)	0 6 0

SLATES.

Per 1,000 of 1,200 f.o.r. London.

		£ s. d.
Best Blue Bangor Slates,	20 by 10	13 5 0
" "	16 by 8	6 12 6
First quality "	20 by 10	12 15 0
" "	16 by 8	6 10 0
Best Blue Portmadoc	20 by 10	13 5 0
" "	16 by 8	6 12 6
First quality "	20 by 10	12 12 6
" "	16 by 8	6 7 6

WOOD.

BEST BUILDING REDWOOD. Imported sizes.
Deals: 4 in. by 12 in., 4 in. by 11 in., 3 in. by 11 in., 4 in. by 9 in., and 2 in. by 11 in.
3 in. by 9 in., 2½ in. by 9 in., and 2 in. by 9 in.

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn.

WOOD (*Continued*).

BEST BUILDING REDWOOD.
Battens: 2 in., 2½ in., and 3 in. by 8 in.
2 in., 2½ in., and 3 in. by 7 in.
2 in., 2½ in., and 3 in. by 6 in.
Scantlings: 2 in. by 3 in., 2 in. by 3½ in., 2 in. by 4 in., 2 in. by 4½ in.
3 in. by 4 in., and 3 in. by 4½ in.
Boards: 1 in., 1¼ in., and 1½ in. by 6 in. and 7 in.
¾ in.
Seconds
Sawn pitch pine logs (about 35 cu. ft. average
Do. 6 in. to 10 in.
Best Pitch Pine Deals
Under 2 in. thick

JOINERS' WOOD

White Sea First Quality Red: 4 in. by 11 in.
3 in. by 11 in., and 2 in. by 11 in.
4 in. by 9 in.
3 in. by 9 in., and 2½ in. by 9 in.
3 in. by 11 in. boards
7 in. and 8 in. battens
7 in. and 8 in. boards

Softwood stocks controlled by the Director of Materials, consequently prices must be withdrawn.

Archangel White Deals—
Best 3 in. by 9 in. and 10 in. and 11 in.
Seconds, do.
U.S. Battens
Prepared Floorings and Matchings. Seconds Swedish Red and equal—
1¼ in. by 6½ in. planed and shot
1¼ in. by 6½ in. planed and matched
1 in. by 6½ in. planed and shot
1 in. by 6½ in. planed and matched
⅞ in. by 6½ in. planed, matched, and beaded, or V jointed
1 in. by 6½ in. do.
Columbian or Oregon Pine, best quality
Yellow Pine—First regular sizes
Oddments
Seconds, regular sizes
Oddments
Kauri Pine—Planks per ft. cube

Dry Wainscot Oak, per ft. super, as inch	0 1 0	..	0 1 6		
¾ in. do. do.	0 0 10	..	0 1 2		
Dry Mahogany—Honduras, Tabasco, per ft. super, as inch	0 1 6	..	0 2 6		
Cuba, Mahogany	0 1 6	..	0 2 6		
Dry Walnut, American, per ft. super, as inch	0 1 6	..	0 2 6		
French, "Italian," Walnut	0 1 6	..	0 2 6		
Teak, per load (Rangoon or Moulmein)	30 0 0	..	40 0 0		
Do. do. (Java)	30 0 0	..	40 0 0		
American Whitewood planks, per ft. cube	0 8 6	..	0 10 0		
Glue, per cwt.	5 0 0	..	5 5 0		

METALS.

JOISTS, GIRDERS, &c.

Rolled Steel Joists, ordinary sections, basis price
Plain Compound Girders, ordinary sections
Plain Compound Stanchions
Angles, Tees, and Channels, ordinary sections
Flitch Plates
Cast Iron Columns and Stanchions, plain ordinary patterns

Prices controlled by the Ministry of Munitions.

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £4 net value delivered direct from works. 5 per cent. less carriage forward if sent from London stocks.)

	Tubes.		Fittings.
Gas	45	....	50
Water	40	....	47½
Steam	35	....	45
Galvanised gas	27½	....	42½
" water	18½	....	40
" steam	12½	....	37½

L.C.C. SOIL PIPE—

	Pipes Coated.		Bends.		Branches.	
	s. d.		s. d.		s. d.	
2 in. per yd.	2 8	....	2 1	each	2 6	
2½ in. " ..	3 1	....	2 4	"	3 2	
3 in. " ..	3 10	....	2 6	"	3 9	
3½ in. " ..	4 2	....	3 2	"	4 4	
4 in. " ..	4 8	....	3 6	"	5 0	

RAIN-WATER PIPES, &c.

	Pipe.		Bends.		Branches.	
	s. d.		s. d.		s. d.	
2 in. per yd.	2 0	....	1 2	each	1 8	
2½ in. " ..	2 2	....	1 5	"	2 0	
3 in. " ..	2 6	....	1 9	"	2 6	
3½ in. " ..	3 0	....	2 1	"	3 0	
4 in. " ..	3 3	....	2 6	"	3 8	

L.C.C. DRAIN PIPES,—9 ft. lengths. London Prices.
4 in., 5s. 3d. .. 5 in., 6s. 3d. .. 6 in., 7s. 6d.

METALS (*Continued*).

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	16 10 0	to	17 0 0
Staffordshire Crown Bars—good merchant quality	16 10 0	..	17 10 0
Staffordshire "Marked Bars"	17 10 0	..	18 0 0
Mild Steel Bars	19 0 0	..	19 10 0
Steel Bars, Ferro-Concrete quality, £19 basis price.			
Hoop Iron, basis price	20 0 0	..	20 10 0
" Galvanised	33 0 0	..	—
("And upwards, according to size and gauge.)			
Sheet Iron Black—			
Ordinary sizes to 20 g.	22 0 0	..	22 10 0
" " 24 g.	23 0 0	..	23 10 0
" " 26 g.	24 0 0	..	24 10 0
Sheet Iron, Galvanised flat, ordinary quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	32 0 0	..	—
Ordinary sizes to 22 g. and 24 g.	32 0 0	..	32 10 0
Ordinary sizes to 26 g.	35 0 0	..	35 10 0
Sheet Iron, Galvanised, flat, best quality—			
Ordinary sizes to 20 g.	35 0 0	..	—
" " 22 g. and 24 g.	35 10 0	..	—
Ordinary sizes to 26 g.	38 10 0	..	—
Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 8 ft. 20 g.	31 0 0	..	—
Ordinary sizes, 22 g. and 24 g.	31 10 0	..	—
Ordinary sizes, 26 g.	32 0 0	..	—
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	24 10 0	..	—
Best Soft Steel Sheets, 20 g. and 24 g.	24 15 0	..	—
Best Soft Steel Sheets, 26 g.	26 10 0	..	—
Cut Nails, 3 in. to 6 in.	28 0 0	..	29 0 0
(Under 3 in., usual trade extras.)			

LEAD, &c.

Delivered in London.

	£ s. d.		
LEAD—Sheet, English, 4 lb. and up	38 10 0	..	—
Pipe in coils	39 0 0	..	—
Soil Pipe	42 0 0	..	—
Compo pipe	42 0 0	..	—

NOTE—Country delivery, 20s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Orders for over 1 cwt. should be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N. 2 (E)], Hotel Victoria, S.W.
Allowance for old lead, £26 per ton.

COPPER—			
Strong Sheet per lb.	0 1 6	..	—
Thin " "	0 1 8	..	—
Copper nails "	0 1 6	..	—
Copper wire "	0 1 8	..	—
BRASS—			
Strong Sheet "	0 1 6	..	—
Thin " "	0 1 8	..	—
TIN—English Ingots "	0 2 6	..	—
SOLDER—Plumbers' "	0 1 1	..	—
Tinmen's "	0 1 5	..	—
Blowpipe "	0 1 7	..	—

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	4½d	26 oz. thirds	7½d.
" thirds	5½d.	32 " fourths	8d.
21 " fourths	5½d.	" thirds	9d.
" thirds	6½d.	Fluted Sheet, 15 oz.	6½d.
26 " fourths	6½d.	21 "	7½d.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½.
¼ Rough rolled and rough cast plate	4½d.
⅜ Rough rolled and rough cast plate	4½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6d.
Ditto, tinted	7d.
Rolled Sheet	5d.
White Rolled Cathedral	5d.
Tinted do.	5½d.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil in pipes per gallon		0 5 2
" " " in barrels "		0 5 3
" " " in drums "		0 5 6
Boiled " " in barrels "		0 5 6
" " " in drums "		0 5 9
Turpentine in barrels "		0 4 8
" in drums "		0 4 11
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		53 10 0
GENUINE WHITE LEAD PAINT— "Blackfriars," "Nine Elms," "Park," and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered		69 0 0
Red Lead, Dry (packages extra) per ton		42 0 0

Orders for over 28 lb. of White Lead, White Lead Paint and Red Lead should be accompanied by a certificate or licence, which can be obtained from the Director of Materials [A.N. 2 (E.)], Hotel Victoria, S.W.

Best Linseed Oil Putty	per cwt.	0 14	0
Stockholm Tar	per gallon	0 3	6
Filocol	per cwt.	0 11	6

VARNISHES, &c.

	Per gallon. £ s. d.
Fine Pale Oak	0 8 0
Pale Copal Oak	0 10 0
Superfine Pale Elastic Oak	0 12 6
Fine Extra Hard Church Oak	0 10 6
Superfine Hard-drying Oak, for seats of Churches	0 14 0
Fine Elastic Carriage	0 12 6
Superfine Pale Elastic Carriage	0 16 0
Fine Pale Maple	0 10 0
Finest Pale Durable Copal	0 18 6
Extra Pale French Oil	1 1 0
Eggshell Flatting	0 18 0
White Pale Enamel	1 4 0
Extra Pale Paper	0 12 0
Best Japan Gold Size	0 10 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 6 0
Berlin Black	0 16 0
Knotting	0 2 6
French and Brush Polish	0 12 0

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 12 *noon on Wednesday.*

* Denotes *accepted.* † Denotes *provisionally accepted.* ‡ Denotes *recommended for acceptance.*

BATH.—For the supply to the Electric Lighting Committee of the T.C. of a hand-operated transporter:—

*Herbert Morris, Ltd., Loughborough	£95 7 6

BOURTON (DORSET).—For rebuilding the county bridge at Bourton, for the Dorset C.C. :—

*Fowles	£430

GLASGOW.—For painting work at Gas Manager's office, for the Corporation :—

*H. L. Anderson & Co.	£240

GLASGOW.—For the erection of exhibition buildings on Bunhouse Ground, for the Corporation :—

*John Baxter & Sons (*a*) Brick, cement, plumber and painter works, £7,160 15s. 8d.: (*b*) carpenter, joiner, glazier and ironmongery works, £9,881 8s. 1d.

LONDON.—For cleaning and painting work at the Eastern Hospital, for the Metropolitan Asylums Board :—

H. Pickrill	£375
Payne Bros.	243
L. Kazak	218
H. J. Edgar	205
A. H. Inns	197
‡A. Vigor, Ltd., 10, Coleman-street, E.C.	187

Acting Engineer-in-Chief's revised estimate, £195.

LONDON.—Proposed extension of present factories of the British Ever Ready Portable Electric Lighting Company, Ltd., Stoke Newington, forming a dining-hall for the company's employees, according to the drawings and specification of the company's architect, Mr. George Carter, M.A., Lic. R.I.B.A., 513, Holloway-road, N.

Messrs. Courtney & Fairburn	£1,457
Messrs. Mather	1,393
*Messrs. Thomas & Edge, Woolwich	1,347

The tender of Messrs. Summerling, of Bunhill-row, E.C. (£400) accepted, for engineering equipment in connection with the building works, &c.

MALLOW.—For cleansing reservoir at the Waterworks, for the U.D.C. :—

J. Crowley	£160 0 0
P. Sherman	149 10 0
*P. J. Hassett	79 0 0

PORTSMOUTH.—For repairs to tanks and sewage outfall at Eastney, for the Corporation :—

*McKinlay & Co., Ltd.	£216

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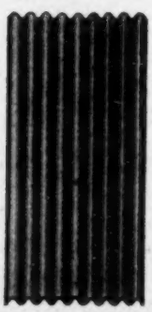

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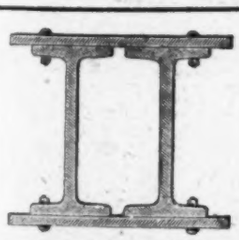

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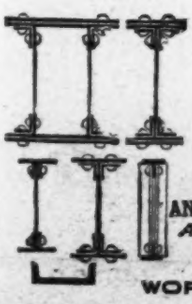

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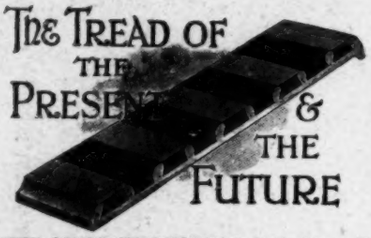

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INDEX

To Vol. CXII of "The Builder."

In order to meet the Government's wish for **economy in paper,** the index for the past six months was not included in the issue of July 13, but will be sent **Post Free** to any reader applying for same to

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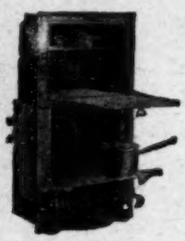

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